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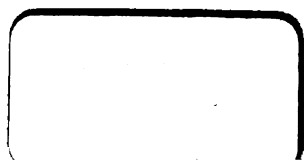
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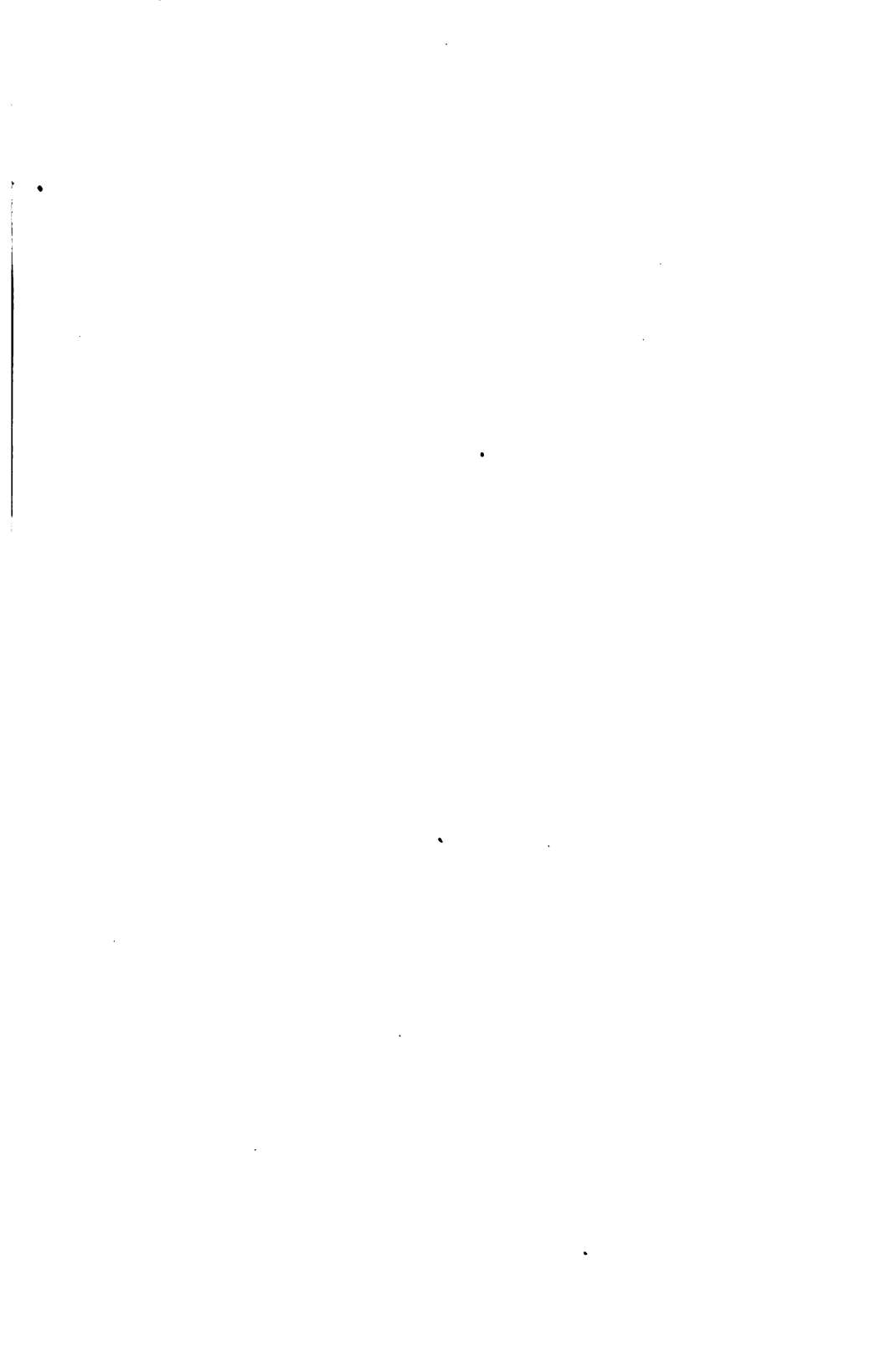
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**BULLETIN**

**OF THE**

**AMERICAN ACADEMY OF MEDICINE**

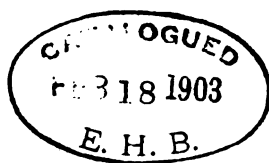
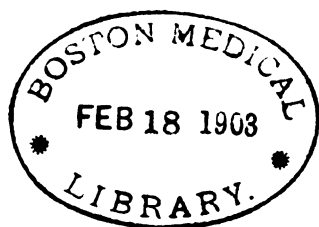
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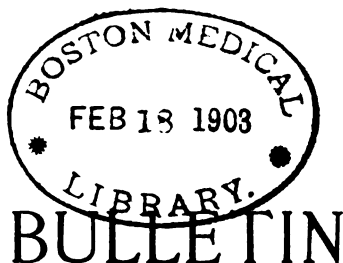
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## SOME MEASURES FOR THE PREVENTION OF CRIME, PAUPERISM, AND MENTAL DEFICIENCY.<sup>1</sup>

BY G. HUDSON-MAKUM, M.D., Philadelphia.

### *Ladies and Gentlemen:*

The honor of presiding over this learned body is one of which even a more worthy man might well be proud. My predecessors in this chair have been men distinguished alike in medicine and in letters, and to keep up the standard set by them will be indeed an arduous task.

The American Academy of Medicine was instituted about a quarter of a century ago. Its chief object originally was to promote the higher education of medical men. In a great measure this object has been accomplished and the Academy is to be congratulated. Now, someone has suggested that there no longer appears to be any good reason for its continuance; but the fact is that never in the history of medicine or, indeed, in the history of the world, has there been so great a field for medico-sociologic investigation. We are face to face with important problems actually demanding solution. The chief topic forming the symposium for this present meeting, and eliciting so much valuable discussion, is one that naturally leads up to kindred topics of even greater importance, and to which medical men hitherto have given but scant attention.

<sup>1</sup> The president's address before the American Academy of Medicine, Atlantic City, N. J., June 2, 1900.

During a recent visit to the New York State Reformatory for Criminals, one of the largest and most efficient institutions of the kind in the world, I asked the superintendent, Dr. Z. R. Brockway, whether he had given any thought to the prevention of criminality, and he said: "The present century has been devoted to the care of criminals but the next century will be devoted to their prevention." This statement, made by a man whose life work has been the study of these questions, suggested to me the topic of the address that I now have the honor to deliver.

The care and treatment of the so-called defective, delinquent, and dependent classes is a subject in which sociologists have been interested during the greater part of the nineteenth century, and it is a subject that will be of great and growing importance during the twentieth century. That the question has not yet been solved is shown by the authentic statement that these unfortunate classes are increasing in a proportion far greater than the increase of our population. This is a startling fact, and when we reflect that the conditions making it possible exist, not only in spite of, but to a great degree because of, our much vaunted civilization, our responsibility becomes all the more clear and our duty all the more imperative.

In precivilized times, only the fittest survived. Now we are endeavoring to establish a new law, and our best efforts are being directed toward the survival of the unfit. We teach the lame to walk, the blind to see, the deaf to hear, and the dumb to speak. We prolong the lives of weaklings and make it possible for them to transmit their characteristics to future generations. The law of natural selection is a thing of the past, and we have made no provision for a suitable substitute. Prof. Fetter, of Leland Stanford University, has pointed out the fact that many of our well-recognized advances in social evolution tend to limit the reproduction of the sturdy and increase the reproduction of the weaker classes; and that the evils of this tendency are but beginning to be felt. Our poorest homes often have the largest families; while in our best homes, small families are becoming more and more fashionable. In clinical dispensary records, it is no uncommon thing to find a feeble-minded pauper

to be one of eight or ten, or even twelve children, many of them the product of degenerate parents, and all of them living in the most unfavorable environments; while our private records, made up for the most part from the better classes, contain histories of few families having more than three or four children. This would seem to be a serious matter, and to have a direct bearing upon the future character and integrity of the race.

The law of natural selection having been made inoperative by our civilization and largely, I may say, by our skill in curative and preventive medicine, it would seem fitting that we should endeavor to establish some other form of selection suitable to the requirements of existing conditions. This has not been neglected in the department of agriculture and in the breeding of dogs and horses. It is only the propagation of the human species that is left entirely to chance or caprice. As some one has said, the more intelligent sympathy of the future will demand that misery be not merely alleviated, but that it be no longer transmitted as a curse to posterity; and that for the old brutal elimination of the unfit be substituted a rational and scientific process of selection. The evolution of this process will be of slow growth; the difficulties encountered in its development will be many and varied, and they will be of such character that only the physician can successfully cope with them.

Already members of this Academy are formulating plans for a scientific selection. Just what will be its essential features can only be surmised, but I predict for one thing that there will be a decided revision of the laws regulating immigration. No foreigner will be allowed to enter this country who cannot present a clean bill of mental and physical health. Europe no longer will be allowed to make America its dumping ground. New York, it is said, harbors more Irish than any city in Ireland; and Chicago, more Teutons than any German city except Berlin.

I predict, furthermore, that there will be a revision of the laws regulating the marriage contract, and that the union of persons afflicted with communicable and inheritable diseases, whether they be physical or mental, will be made much more difficult. The law will say to the candidate, "What right have you to

take this woman to be your wedded wife, and to assume the responsibility of fathering her children? Has your past life been such as to make this marriage conducive to her health and happiness, and to the health and happiness of her children and of the state of which they will form a part?"

This is not a new thought, for Plato, 300 B. C., relates a conversation with Glaucon in which he said, "How can marriage be made most beneficial? That is a question which I put to you, because I see in your house dogs for hunting, and of the nobler sort of birds not a few. Now I beseech you, do tell me, have you ever attended to their pairing and breeding? In what particulars? Why, in the first first place, although they are all of a good sort, are not some better than others? True. And do you breed from them all indifferently, or do you take care to breed from the best only? From the best. And do you take the oldest or the youngest, or only those of ripe age? I choose only those of ripe age. And if care was not taken in the breeding, your dogs and birds would greatly deteriorate? Certainly. And the same of horses and of animals in general? Undoubtedly. Good heavens, my dear friend! I said, what consummate skill will our rulers need if the same principle holds of the human species. Why, the principle has been already laid down that the best of either sex should be united with the best as often, and the inferior with the inferior as seldom as possible; and that they should rear the offspring of the one sort of union, but not of the other, if the flock is to be maintained in first-rate condition."

There always have been objections to the multiplication of legislative enactments relating to marriage, but these objections are gradually being met and overcome. It has been said, for instance, that the enforcement of stringent marriage laws defeats its own purpose and results in free love, with all its train of evils, and thus tends to increase, rather than to diminish, pauperism, criminality, and other defectiveness. But for those so weak and base as to respect not the law, another and more potent remedy is at hand—I refer to that of asexualization.

Although many objections are being raised to this operation, I have little doubt but that during the early part of the next century it will become a well-recognized and legalized practice.

The State of Michigan has already legalized the procedure, and a bill of similar intent is now being prepared for presentation at the next Legislature in Pennsylvania. This operation has increased the usefulness of many of the lower animals by making them more susceptible to training ; and in the few cases in which it has been done on the human subject, the results have been equally satisfactory. In the same way that the horse is made more tractable by asexualization, so the imbecile and idiot are made more amenable to education and training. There are, therefore, two special reasons for suggesting the operation as a regular mode of treatment for certain forms of defectiveness, and either one of them would seem to be sufficient to recommend its adoption. In the first place, it is distinctly remedial and possibly, in some cases, even curative ; in the second place, it prevents absolutely the reproduction of undesirable characteristics and tendencies. It is also a reasonably safe operation, and it is attended with but little, if any, pain. It will be indicated only in selected cases, belonging for the most part to those classified as imbeciles and high-grade idiots. Those less deficient than the imbecile will be governed largely by the restrictive marriage laws, and the low-grade idiot will be under the direct custodial care of the state. It is interesting to note that for the final disposition of the latter class, Dr. W. Duncan McKim, of New York, has proposed a still more radical measure ; namely, what he calls "a gentle and painless death." His views on this subject are well set forth in a book published by the Putnams, which book he declares to be "an expression of the spirit of the age." To most of us this method will appear to be altogether too radical, and I mention it only as an indication of the drift of thought with reference to these matters. Whatever other steps may be taken in our efforts to prevent the reproduction of degeneracy, I am convinced that we should endeavor to create in the public mind a sentiment against unrestricted immigration and promiscuous marriages which shall be so strong as to demand laws forbidding them ; and in those cases in which these laws will not have the desired effect, that we should strongly urge the adoption of the more positive measure referred to above ; *viz.*, asexualization. If there is aught in the theory of

inheritance, and who of us has not observed ample evidences of its truth, is it not high time that we, as practical physicians and sociologists, should learn the lessons that it teaches and make use of them in our endeavor to emancipate the race from disease and defectiveness?

Coming now to the degenerate classes as they exist to-day, what shall we do to limit their degeneracy, to check them in their downward career, and to prevent them from becoming a greater burden to society? Our methods of treating these classes have been inadequate and unscientific. There is probably no department of sociologic work in which there is so much need for improvement, and in which the service of the physician is so indispensable.

Hitherto the work has been carried on largely by misguided philanthropists, whose philanthropy, as Sir Walter Scott has said, "has risen almost to the pitch of insanity." They have had in view only immediate results, and have been prompted by personal, and oftentimes selfish, motives. They have been seeking, as someone has put it, "a kind of fire insurance" for themselves. Indiscriminate charity is responsible, to a great degree, for the increase, not only of pauperism, but of other kindred and associate forms of degeneracy.

It has been proved beyond a doubt that any community will have as many paupers as it will support. Tramps follow the lines of least resistance, and soon come to know where they can most easily get something for nothing. Promiscuous almsgiving, therefore, must result in evil, and can do no good, unless it be a good to ease the conscience of the giver and make him feel more comfortable.

"And here are the people pressing,  
To rob us of our pet blessing;  
For we shall lose, you see,  
Our boasted charity.  
No chance to do one good deed;  
To give what we do not need;  
To leave what we cannot use  
To those whom we deign to choose."

Nor are we, members of the great medical profession, the least of the offenders coming under the ban of the poet's sarcasm, for



indiscriminate dispensary service is probably the most degrading and the most demoralizing of all the indiscriminate charities. It degrades and demoralizes both the patient and the doctor, and it is therefore one of the great crying evils of the age. A large percentage of those receiving gratuitous treatment in the out-patient departments of the hospitals of our large cities should be obliged to pay for the service, and I venture to say that the moral effect of this obligation, even upon their physical condition, would more than outweigh the benefits derived from their present mode of treatment. We must, therefore, cast the beam out of our own eye before we can see clearly to extract the mote from the eye of our brother philanthropist. Indiscriminate and promiscuous giving, therefore, whether it be of money or of service, must necessarily be degrading and demoralizing, and must increase enormously the great army of paupers,—an army, the proportion of which to the whole population is fearfully large, and the existence of which is a reproach to our civilization. Prof. R. T. Ely, of New York, estimated the number of paupers in the United States at five per cent. of the total population, or more than three millions, and the cost to the country at one hundred millions of dollars annually.

Moreover, poverty may be called the mother of crime and insanity, and, like its offspring, it is a mark of defective mentality. "Poverty," says Boies, "is not the mere fact of an empty purse, but it involves the whole man." It is often made an excuse for the violation of law; and the pauper class, it is said, furnishes in the ratio of its numbers, sixty-four times as many cases of insanity as the independent class. Pauperism, criminality, insanity—all one interdependent family, and if we would diminish one of them, we must attack all three. We should bear in mind, however, that they are not diseases, but that they are the symptoms of mental defectiveness, and they should be so regarded from the standpoint of diagnosis and treatment. We do not treat symptoms, but disease, and if we would diminish this trinity of symptoms, we must direct our attention to the defectiveness back of them.

Following close upon the evils of indiscriminate charity, come those of indiscriminate institutionalism. The monasteries of the

old countries have become models for the various institutions of the new ; and in our blind imitation of ancient customs, we have failed to recognize their proper limitations. We boast even to-day of our magnificent buildings for the care of the pauper, insane, and criminal classes, many of them erected for the sole purpose of perpetuating a name, and with little regard for their actual usefulness.

"Merely for a chance to endow or bedizen  
A hospital, school, or prison,  
To leave our own proud name  
To gratitude and fame."

It is said that the city of Philadelphia supports a benevolent institution for every 10,000 of its inhabitants, and the application of practical politics to many of them may well fill us with alarm. " 'To the victor belong the spoils,' a glorious sentiment," says Mr. A. E. Osborne, "even though the spoils be no more than the milk that feeds the foundling or the gruel and bread of the idiot !"

Riel is quoted as saying of the German asylums of 1803 that they were madhouses not merely by reason of their inmates, but more especially because they were the very opposite to what they were intended to be. They were neither curative institutions, nor such asylums for the incurable as humanity can tolerate. They were for the most part veritable dens. And yet, in what respects have we improved upon them ? We have abandoned, to be sure, the barbarous methods of punishment practised in those days ; but with this exception we have made but little progress in our general institutional treatment of the insane. They are still herded together like animals, with but little opportunity for the careful study of individual cases or for the scientific application of curative measures. Institutionalism offers scarcely more hope for the cure of insanity to-day than it did one hundred years ago. The colony system in vogue to a certain extent abroad, and beginning to be adopted in our own country, promises more beneficent results, because it provides for the insane something like a home life, in which their individual peculiarities may be studied and congenial employment may be given. "Has man so little respect," says Riel, "for the

jewel that makes him man or so little love for his neighbor who has lost that treasure that he can not extend to him the hand of assistance and aid in regaining it?" "Insanity differs but little from other nervous affections and it is as susceptible to cure as many of the fevers and other diseases upon which we bestow so much attention. Only a small percentage of the insane should be regarded as wholly incurable, and thus eligible to institutional life.

In the treatment of criminals, institutionalism has a somewhat wider field, because criminals must be detained for a longer or shorter period of time; but there is much room for improvement in the character and conduct of these institutions also. Their chief feature has always been the notion of punishment for the crime, rather than the reformation of the criminal himself. Sir Walter Scott said: "I do not see the propriety of making prisons dandy places of detention; they should be places of punishment." It is somewhat doubtful, however, whether punishment or the fear of punishment ever serves to any great degree as a deterrent from criminal acts, and the history of prisons, county jails, and workhouses shows that they do not possess much, if any, reformatory value or influence. "Crime," says Ruskin, "can not be hindered by punishment; it will always find some shape and outlet, unpunishable or unclosed. Crime can only be truly hindered by letting no man grow up a criminal,—by taking away the will to commit sin, not by the mere punishment of its commission. Crime, small and great, can only be truly hindered by education—not the education of the intellect only, which is, on some men, wasted, and for others mischievous; but the education of the heart, which is alike good and necessary for all."

Moreover, institutional punishment oftentimes serves to increase the criminal tendencies. The inmates develop a pride in their nefarious schemes and they are rated in point of distinction according to the degree of the crime for which they were committed. Thus a spirit of rivalry is formed, the same as exists in all professional and business transactions; and it is regarded as a disgrace in the prison community to have been committed for a minor offense. It follows, therefore, that when their sentence has been served, they often go out into the world with the full

determination to do something more worthy of their peculiar talents.

In contradistinction to this theory, Mr. Barnes, chaplain of the Massachusetts State Prison, has said that the whole theory of penal institutions is radically wrong ; that society, and not the individual, is responsible for man's crime ; and therefore he should be sent to jail, not to be punished, but to be reformed ; to be taught moral and intellectual beauty, and whatever of punishment there may be connected with it should consist in instruction and elevation. The history of the Massachusetts institution, and of the New York Reformatory, which I had the honor of visiting, would seem to prove the wisdom of these latter views. The inmates have been committed on an indeterminate sentence ; they are given manual training, a choice of trades, steady occupation, gymnasium and military drills, abundance of outdoor exercise, instruction in the arts and letters, the privilege of the use of good libraries, and elevating entertainment after the labor of the day.

To us there is in all this no suggestion of punishment ; but to young criminals it appears to be punishment of the severest sort. To them all productive work is distasteful, and they have no thought of reformation. They prefer the non-reformatory prison, with a determinate sentence, their chief notion being the prospect of a life of idleness in the prison, and liberation therefrom at the close of a certain fixed period. To be obliged to earn their freedom by the sweat of their brow and a change in their habits of life is not at all to their liking ; and we have in this system a form of punishment which is really educational and, in the highest sense, reformatory. The motto of the Elmira institution is : " No man, whatever his offense, ought ever to be discharged except upon reasonable evidence that he is morally, intellectually, and physically capable of earning a livelihood." To this kind of institutionalism we make no objection, because it is truly educational, both in its aims and in its results ; and it is to some form of education that we must look for our most effective means for the prevention of crime and pauperism, as well as for the prevention of mental deficiency. But statistics have been given repeatedly to show that education not only does not prevent, but that

it actually increases crime ; that it does not supplant the criminal instincts in man, but that it rather leads them out and sharpens them, and thus makes a more successful criminal. Spencer says, "So far from proving that morality is increased by education, facts prove, if anything, the reverse." If this be true, the fault must be with the application of the principle, rather than with the principle itself. There is an education of the mind and an education of the heart ; one develops the intellectual, the other the moral nature, and it is undoubtedly true that the one form of development may proceed independently of the other. Our education is too much of the intellectual sort, and it results oftentimes in the production of what may be called intellectual monstrosities, who may, and often do, become lunatics and criminals ; and that, too, not in spite of, but because of their education.

The hope of the future of our country is in the young, and if we would strike at the very root of crime, pauperism, and mental deficiency, we must begin with the young, and we must improve our methods of education. In the Elmira Reformatory, it is said that 85 per cent. of the criminals are reformed, and are never heard of again in the criminal courts. Here would seem to be a system of education that develops the moral, as well as the intellectual, nature and may we not gather from it some valuable suggestions ? The kind of training that will actually reform evil tendencies should, if applied at the proper time, prevent their development. If 85 per cent. of all young criminals may, by training, be turned from the error of their ways, why may not even a larger percentage, by simpler methods, be prevented from ever entering the criminal class ? The system adopted in this institution is one comprised chiefly of manual training. Every one of the 1500 young criminals must learn to do something with his hands, and to do it well, before he can hope to gain his freedom. He is given a choice of trades, and the one chosen is to be his badge of future citizenship. His training is directed with scrupulous care, and with special reference to the development of a high degree of excellence. If for any reason he is unable to enter directly upon the trade itself, he is placed for a time upon the simplest and most rudimentary

kind of kindergarten work ; and thus slowly, but surely, led on until he finally becomes a skilful workman. This gives him a new sensation, a consciousness of power which he should have had years before, and which is now to be his capital in life and to take the place of the former vicious tendencies.

As I have said, the chief feature of this education which produces such marvelous results, is manual training ; and the visual and oral training, such as is made use of almost exclusively in our schools, is given a subordinate position. Only two evenings a week are given to this kind of work, and yet it is most interesting and suggestive to note that much greater progress is made during this limited time than is made by the public school children whose entire time is given to these studies. It is quite possible and, I think, very probable, that our school children would actually acquire more knowledge if half of their school hours were given over to well-directed manual work ; and I am sure that they would gain more in the development of brain power and character. The eye and ear are not the only avenues to the brain ; nor, indeed, are they the most important. Brain power, as Prof. Christian, of Yale University, has demonstrated, may be developed by mere muscle training, independently of any special mental activity ; and if this be true, it is reasonable to suppose that the highest cerebral development must come from a judicious combination of both mental and muscle action. As Ruskin has so well said, " Let a boy once learn to take a straight shaving off a plank, or draw a fine curve without faltering, or lay a brick level in its mortar, and he has learned a multitude of other matters which no lips of a man could ever teach him."

The aim of all education should be what someone has called " a training for citizenship." " The first condition," to quote Ruskin again, " under which it can be given usefully, is that it should be clearly understood to be no means of getting on in the world, but a means of staying pleasantly in your place there." The secret of the success of the Elmira institution lies in the fact that an attempt is made to adapt the training to the individual ; and it is in the failure to do this that we shall find the great weakness of our general school system.

According to the statement of the public school-teachers, there are in the City of Philadelphia 1,200 children for whom no suitable methods of instruction have been provided. In the report of the Philadelphia School for Backward Children, recently sent to the Paris Exposition, Miss Dora Keen has well said that "degeneration is the alternative of progress." The school that does not meet the requirements of the child is worse than no school at all. No two children are in all respects alike, and the same kind of training cannot be applicable in all cases. I would individualize children in their training and in their development; and the careful study that would be necessary in the prosecution of this plan would enable us to determine slight peculiarities and defects in the younger children, and to adopt some measures to eradicate them. We cannot well begin the training of our children, as Dr. Holmes has suggested, in the two or three preceding generations; but we can begin to study their individual needs earlier in their own lives and endeavor to detect vicious tendencies long before they actually break out into criminal acts. If this were done, it is fair to suppose that the majority of the inmates of criminal institutions might be saved from the disgrace attached to their commitment and from becoming an expensive burden to the state. This study of the mental and physical tendencies of the young has been much neglected and there is great ignorance both on the part of teachers and physicians as to the early symptoms of degeneracy. Many of us are satisfied in being able to distinguish between the bright and the dull child, and we dispose of the latter by saying that he is "not quite right." Numerous illustrations might be given of the importance of further knowledge on this subject.

Three years ago, in a paper read before this Academy, I referred to a case, the outcome of which is most interesting and instructive. A young man 19 years of age had been classed by his family, his teachers, and by his physician with those mentally deficient; and not only so, but the physician who, more than anyone else, should have known the possibilities in the case, gave as his opinion that he was an imbecile and that it was utterly useless to try to do anything for him. The most striking peculiarity about the boy was that he was unable to utter a single intelligi-

ble syllable, and that this inability to speak proved to be due to a lack of the normal development and coordination of the muscles of his tongue. A slight operation on one of these muscles, with some individual and systematic training of speech, opened up this important avenue of expression and this, in his case, was the one thing needful for the development of the mental faculties. It is less than five years since the young man first came under treatment and he is now doing a lucrative business as a real estate broker in Philadelphia, on Chestnut street, near Broad ; and there are probably few men who will equal him in his chosen profession. Other almost equally striking illustrations might be given of the importance of the careful study and accurate diagnosis of these obscure cases and also of the great value of co-ordinate muscle activity in mental development. I consider that the young man gained more brain power by attempting to control the delicate muscles of the vocal and oral mechanisms than he has gained by all his purely intellectual work since he began his treatment.

And now, ladies and gentlemen, allow me a brief summarization. Crime, pauperism, and mental deficiency are on the increase, and they are beginning to be a menace to our national life. The causes of this increase are many and complex. Civilization has not progressed uniformly. Many of its most important advances have a tendency to swell the ranks of the defective, delinquent, and dependent classes, and we have made no adequate provision for the prevention of this tendency. The improvident and incautious are reproducing their kind, while the more prudent and thrifty are occupied in a struggle for existence and independence, which is made more severe by the increased competition of advancing civilization.

The survival of the unfit has become our motto and our aim, and we have ignored the fact that hand in hand with their survival goes their reproduction. The natural resources of our country have attracted foreigners to our shores in great numbers and in all conditions of mental and physical depravity,—hence the necessity for the proposed restricted immigration, for more stringent marriage laws, and, in carefully selected cases, for the entire removal of the powers of procreation.



In addition to the recommendation of this scientific and rational process of selection for the prevention of crime, pauperism, and mental deficiency, I have ventured to point out some of the evils of promiscuous almsgiving and promiscuous dispensary service, and to show that the only real charity is that which helps people to help themselves. I have touched also upon the evils of institutionalism in the care and treatment of the defective, delinquent, and dependent classes, and this is a subject worthy of further consideration by this Academy.

As a final measure for the prevention of crime, pauperism, and mental deficiency, I have ventured to make some suggestions for widening the scope and influence of our methods of education. The object of education should be not so much the acquirement of knowledge as the development of character and brain power, of which the acquirement of knowledge and its effective application, are the natural corollaries.

Every possible avenue to the brain should be utilized in our education, and as we study the action of other remedies, so we should study the action and effects of the various kinds of mental and physical training, and the best methods for their application. Thus we shall demonstrate the important fact that the moral nature is as capable of development as the intellectual nature; and that muscle training in all its varied forms is an essential factor both in the development of brain power, and in the formation of character.

THE PRINCIPLES UNDERLYING SPECIALISM AND  
ADVERTISING IN THE MEDICAL PROFES-  
SION AS FORMULATED BY THE SPE-  
CIAL COMMITTEE APPOINTED  
BY THE ACADEMY.

*At the meeting in Columbus, last year, the following resolution was adopted :*

*"That Dr. Makuen, Dr. Jackson, Dr. Bulkley, and Dr. J. C. Wilson, with the Secretary, be a committee for the study and formulation of principles respecting specialism and respecting advertising, to report early in the session next year."*

*In compliance with this resolution, your committee submits this report.*

I. RESPECTING SPECIALISM.

The Hon. Thomas B. Reed, late speaker of the United States House of Representatives, in a journal article published this year, writing on monopolies, says :

"Words in any language are not definite. They mean too often different things to the speaker and to the hearer, though both assume that they mean the same. Words, too, are often laden, especially in the popular mind, with sorrows of other days—sorrows which have passed away, but the memories of which have survived. Words, again, are epithets, and are easier than descriptions carefully framed to convey true ideas."

Our only excuse for quoting these truisms is that we have an apt illustration of them in the discussion on specialism at the last meeting. The first thought arising after reading the report of it is that a specialist, like Æsop's tongue, is at once the quintessence of reproach and the paragon of excellence in the medical profession. Clearly, then, our first duty is one of description or definition. In the domain of the natural and physical sciences there were no specialists, at the beginning of the century. The naturalist was equally at home in botany and zoology ; the domain of the experimental physicist was lorded over by the chemist. With the years of the century, the field of knowledge broadened, and men, following their tastes or making use of their opportunities, while not entirely relinquishing the effort to be cyclopedic, made the effort to become especially proficient in

one branch. This led to a neglect of the minutiae of all branches of science but his selected branch, in order that he might have time to delve more deeply into the hidden things of the study of his selection. In other words, he specialized in a certain line of study and became a specialist. But the purpose of it all was the furtherance of knowledge. In medicine, on the other hand, the word was taken up by those whose purpose was the furtherance of self. Who, taking advantage of the use of the word in science, where it indicated an acknowledged superiority in a certain branch of study by the commonwealth of students, applied it to themselves to impose a claim of special ability upon the credulous, whom, too often, they desired to victimize. Later, in the history of medicine, a class of physicians were recognized as specialists for the very same reasons that the name was applied to students in pure science. The confusion of this double use of the word exists in much of the discussion upon the subject.

In this report the word is used in its strict sense. The class of medicine men to whom the perverted word can apply, ought not to be included among physicians, and the only reason that any of them were ever so considered is that many general practitioners employ methods to accomplish a similar purpose and are none the less reprehensible than the pseudospecialists. When the words "specialists" and "specialism" are used in this report, the meaning is limited to the better and true sense of the words.

*I. Specialism is not only desirable, but it is unavoidable.*—The all-around man is the exception. Most physicians will become more expert along certain lines. We will invite the co-operation of that neighbor in a case of difficult labor, who is expert in the use of the forceps; while, quite another will be sought if a patient is suffering from an obscure heart trouble, thus recognizing their specialties.

*II. It is proper for a physician to seek to perfect himself in the line of his greatest ability, even to the neglect of some other field of practice.*—Just how far he should do this depends upon other conditions, which do not involve the principle of his so doing.

*III. A specialist—as well as the general practitioner—may have a practice directly with his patients, or indirectly through consultations.*—As no one would think of limiting an individual to the services of one physician in general practice, if he wished to seek the services of another, provided always he seeks his other physician at the beginning of the attack, the same privilege ought to be accorded the prospective patient, if he wishes to seek the advice of a specialist. The patient may not be doing the very best thing, but the physician is not to blame and is justified in accepting the care of the case. For example, Richard Roe, while ordinarily employing Dr. A., may wish to show his goodwill to young Dr. B., who has recently opened an office, by consulting him for some slight ailment. No blame can rest on Dr. B. if he prescribes. Neither should Dr. C. be blamed if Mr. Roe consults him of a hoarseness, and Dr. C. pays special attention to diseases of the throat.

*IV. In his original practice a specialist ought not to be an exclusivist.*—A patient seeks a dermatologist because of a troublesome eczema. The physician suspects a lithic acid diathesis. He ought to be able to determine this and to properly direct all the treatment without referring his patient to some one else for the original determination of the facts apart from the eruption (of course, if the disease is of such a nature as to require a consultation, that should be sought). He should be able to do this in justice to his patient. At the same time, the specialist should exercise care to confine himself to his special line of practice. Thus, should he, in the course of his examination, discover some concurrent affection not dependent upon or caused by the ailment for which he is consulted, he should call the attention of his patient to the condition, and not only suggest he consult some one else, but also to positively decline to prescribe for it, even should he feel thoroughly competent to do so. This, too, is in justice to his patient, who, in all probability, would have consulted some one else had he been aware of the condition. At the same time, it is but courteous to his fellow practitioners; he should not use his specialty as a bait to secure general practice.

*V. In his consulting practice a specialist stands in a different*

*relation to his fellow-physician than do two general practitioners in consultation. He is rather a coadjutor than a consultant.*

—The patient is sent to the specialist not so much for a conference and a mutual decision as for suggestion as to treatment and the possible carrying out of that treatment, upon the specialist's individual responsibility. Hence the specialist should act with great circumspection. The literal request of the family physician ought to be obeyed. Thus, if he ask for a diagnosis and opinion, that should be given and no attempt made at treatment until another request be made by the family physician. The specialist, when a consultant, cannot be too careful in conserving the rights of the general practitioner.

*VI. If a specialist limits his study of medicine to a particular branch because of his peculiar fondness of, or aptitude in that field, in order either to have fuller enjoyment in his life work or to be of greater service in advancing his profession; if he carries into his limited practice the principles underlying professional life, and the habits of the true physician; if he pursues his calling with the instincts of a gentleman, exercising true consideration for the rights and privileges of his fellows, his life cannot help being in harmony with those members of the profession in general practice who observe a like care and consideration. Any discord that may arise will not be because of specialism.*

*VII. When a physician should begin to markedly limit his practice cannot be settled by rule.*—If his chosen line of work involves operative procedure, he must begin early to acquire manual dexterity or he will not become proficient. On the other hand, if he does not have actual experience in general practice, he will fail to realize the relative importance of many conditions, and will be apt to be an exclusivist rather than a specialist. Besides it is possible for one to mistake his ability, and he will find his specialty in a very different field than the one preselected.

## II. REGARDING ADVERTISING.

Here, again, words must be used advisedly, or there would be a blowing hot and cold. A physician would remain without his first patient unless some one's attention were turned towards

him. So, etymologically at least, every physician is advertised either by himself or by some one else. The propositions to be formulated consequently can only attempt to formulate the principles of desirable advertising.

President S. Raymond, of Union College, in an address delivered to the Medical Society of the State of New York, January 31, 1900, expresses a thought helpful to us here. The title of his address is "Education and the Profession of Medicine." He says :

"The profession of medicine (in the title) stands for technical knowledge and skill, and, incidentally a means of livelihood. In making the latter interest only incidental, I feel that I express your own thought, for it is the glory of your profession to put the service of humanity first, but even you cannot ignore the fact that if one must serve, he must live; so that the question of getting a living is one of some importance in connection with the practice of medicine."

Important as it is to discourage the exaggeration of the unselfishness of our profession on the part of its admirers, sentimental philanthropists, and voluntary paupers, it is essential that the physician in choosing his methods of advertising should in his own mind keep clearly in the foreground his duty of service to the community, and hold in proper subordination thereto his private interests.

I. Any method of advertising which reverses the order given by President Raymond is not to be commended, however closely it may appear to conform to written law or good form, for, if the principle involved be followed logically to the end, it will produce charlatanism. This is true whether it is a paper read before a medical society, an article in a medical journal, or a dodger thrown at one's door; if the end in view is personal gain, the honor of the profession is tarnished and the advertiser has diminished his self-respect.

II. Any method of advertising which only seeks to inform the public that the advertiser is ready to be of service is permissible. This statement will not be accepted by you at the first, for you will read into it thoughts which do not belong to it, and fail to notice its limitations. Please note the motive of the announcement; as the temptation will always be to compliment one's self, the motive must be carefully determined before de-

ciding whether any particular formula or method of making that formula known comes properly under this head. The advertiser is to express his willingness to be of service, not his ability, his resources, nor his previous successes. Only the simple fact that there is such a person as Hippocrates Galen, who is willing to serve as a physician, if any one wishes his services. Some methods of announcing this fact may not be thought well of in polite society, neither would his using his knife to convey food to his mouth, but this lack of refinement, while not commendable, ought not damn him as a practitioner.

III. The careful application of these basal principles will determine the true character of any act on the part of a physician which calls the attention of the public to him.

IV. The methods to be employed in the proper advertising of one's self will depend upon one's environment, some localities accepting as in good form a method not to be considered in others. Hence, one's judgment of this act of another should be determined upon the principle involved and the environment.

V. Restrictions upon advertising imposed by medical societies and professional opinion should be equal in their action. It is manifestly unequal, for example, to permit the trustees of a hospital to announce the names of their staff in the daily press, and deny Hippocrates Galen a like privilege, when he has no hospital connection, influence to secure one, or money to start a dispensary for himself.

VI. It is well to remember the changing conditions in the social and economic worlds, which are working wondrous innovations. We have discarded the wig and the gold-headed stick; physicians of repute may even be seen in sack coats. Why then scorn a fellow-practiser, if he announce his office by a modern method, if he observe the unchanging principles in so announcing himself?

In conclusion, the profession of medicine is essentially and always a service. The physician best prepared in his profession soon demonstrates his ability and is his own best advertisement. Unfortunately, there are many handicapped by a lack of fitness—it may be of knowledge or skill, it may be of manner or gentlemanly instincts—and in proportion to the deficiency is the

temptation to secure the means of livelihood by recourse to direct advertising. It is not fair to set up a standard to be reached only by the perfect ones; it should be set so that the mediocre may attain unto it. And full privilege should be granted those who desire to publicly announce themselves as physicians either with unlimited or limited fields of practice, provided in so doing they only seek to express their willingness to be of service, and in no wise to exploit their skill as would a tradesman his stock of merchandise.

[While reading the proof of the report, I came across the following paragraph, by Mr. Thomas Bryant, of London, in his president's address before the Metropolitan Counties Branch of the British Medical Association :

"For whilst with us professional interests must naturally take the first place in our thoughts, it should never be forgotten that the main purpose of our existence as a profession is for the public advantage, and that from such a point of view all our actions will be estimated by the world at large."—*Brit. Med. Jour.*, July 22, 1899, p. 192.—SECRETARY.]



## AMERICAN ACADEMY OF MEDICINE.

### TRANSACTIONS TWENTY-FIFTH ANNUAL MEETING.

ATLANTIC CITY, N. J., JUNE 2, 1900.

The Academy met in the smoking room of the "Shelburne" and was called to order in executive session by the president, Dr. G. Hudson-Makuen.

The minutes of the Columbus meeting were read and approved.

The report of the council was presented, and on motion was received and adopted. It is as follows :

The reviews of the history of the Academy, as chronicled in these annual reports of the Council of necessity bear a close resemblance to each other. The year just passed has been too uneventful to afford an exception.

The preparation of this meeting was relegated to two committees—on arrangements and on papers—and the program in your possession tells how well they performed their duties.

It is pleasant to report that all the fellows elected at Columbus completed their membership by paying the initiation fee.

The Bulletin has been published regularly, and greatly increased in size. Unfortunately the increase of subscriptions has not been as large as expected. The venture has not been sustained financially, and the treasurer's report will not give as good a showing as for the past few years. The reason for this enlargement is the plan of publishing the papers and transactions of the meeting in a single number, which promptly presents them to the members and the public. Material must be secured for the other numbers, and the effort was to make the other numbers of value. Unless there is a substantial increase in the subscription list, this plan will be abandoned, and the former policy of dividing the papers among the numbers for the year again adopted.

We have added to the papers announced on the program the following, promised on the preliminary notice of the meeting, but omitted from the final program, as neither the paper nor an abstract was furnished the committee: papers by Drs. W. L. Pyle, Elmer Lee, and C. F. Ulrich, to be read if time permit.

The following deaths of fellows have been noted :

1. Joseph Coblentz, Vaughan, Wash., died August 6, 1899; A.B. Nashville, College, 1848; M.D. University of Virginia, 1849; elected 1884.

2. Teunis Schenck, Bath Beach, N. Y., died August 15, 1899; A.B. Union College, 1859; M.D. College of Physicians and Surgeons, New York, 1865; elected, 1882.

3. Max Thorner, Cincinnati, died August 27, 1899; M.D. Royal University of Munich, 1884; elected 1897.

4. Alfred Brown, Hellertown, Pa., died September 7, 1899; A.B. Lafayette, 1868; M.D. University of Pennsylvania, 1871; elected 1883.

5. I. Gilbert Young, Philadelphia, died September 26, 1899; A.B. Philadelphia High School, 1859; M.D. University of Pennsylvania, 1862; elected 1884.

6. George Cary, Houlton, Maine, died November 29, 1899; A.B. Bowdoin College, 1860; M.D. College of Physicians and Surgeons, New York, 1866; elected 1888.

7. Luther D. Woodbridge, Williamstown, Mass., died November, 1899; A.B. Williams College, 1872; M.D. College of Physicians and Surgeons, New York, 1877; elected 1892.

8. Joseph C. Mulhall, St. Louis, died January 11, 1900; A.B. St. Louis University, 1869; M.D. St. Louis Medical College, 1872; elected 1889.

9. Edward L. Holmes, Chicago, died February 12, 1900; A.B. Harvard University, 1849; M.D. Harvard University, 1854; elected 1882.

10. Orlando Fegley, Allentown, Pa., died March 10, 1900; A.B. Pennsylvania College, 1863; M.D. University of Pennsylvania, 1867; elected 1879.

11. Edward D. Shakespeare, Philadelphia, died June 1, 1900; A.B. Dickinson College, 1867; M.D. University of Pennsylvania, 1869; elected 1884.

The secretary read a list of applicants approved by the Council, who were duly elected to fellowship.

The treasurer's report was read and referred to an Auditing Committee, consisting of Drs. W. M. Carhart and S. D. Risley.

The chair appointed Drs. Leartus Connor, Edward Jackson, and E. F. Wilson as the Committee on Nominations.

The resignations of Drs. Rupert Norton, of Washington, and Lucien Howe, of Buffalo, were presented with the recommendation of the Council that they be accepted. The resignations were accepted upon motion.

The secretary reported that the Council had extended an invitation to the Conference of State and Provincial Boards of Health, now in session, to our meetings, and that the following reply had just been received :

MUSIC ROOM, HOTEL DENNIS, June 2, 1900.

*To the American Academy of Medicine :*

The Conference of State and Provincial Boards of Health of North America acknowledges the receipt of the very kind invitation of the

American Academy of Medicine to attend its meetings and cordially accepts the same.

The Conference of State and Provincial Boards of Health of North America also returns the compliment and invites the American Academy of Medicine to attend its meetings and take part in its discussions.

(Signed) J. N. HURTY, M.D., *Secretary*.

The invitation was accepted with the thanks of the Academy.

The hour arriving for the open session the Academy arrested its executive session.

The report of the Special Committee for the Study and Formation of Principles Respecting Specialism and Respecting Advertising was read by the secretary. It elicited considerable discussion, which resulted in the adoption of that part of the report relating to specialism and the recommitting the rest of the report for modification. The following papers in the symposium on "The Medical Aspect of the Home," were read during the session.

1. "The Essential Conditions for a Habitation to Develop and Maintain a Healthful Family Existence," by Dr. Rosa Engelmann, of Chicago.

2. "The Influence of Early Training of Manly and Womanly Qualities to Avoid Degeneracy," by Dr. J. Cheston Morris, of Philadelphia.

3. "The Influence of Medical Supervision of Children in their Homes," by Dr. J. Madison Taylor, of Philadelphia.

4. "School Hygiene and Medical Inspection of Schools," by Dr. W. M. Carhart, of New York.

5. "Dejectives and Delinquents Inside and Outside the Family Circle," by Dr. James W. Walk, of Philadelphia.

6. "The Relation of the Habitual Use of Alcoholic Intoxicants to the Sanitation of the Home," by Dr. J. W. Grosvenor, of Buffalo.

7. "The Hygiene of Vision in the Home," by Dr. S. D. Risley, of Philadelphia.

8. "The Physician's Influence *in re* Vacation Schools," by Dr. Helen C. Putnam, of Providence.

The lateness of the hour prevented the discussion of these papers and it was postponed until Monday.

## EVENING SESSION.

The Academy met at eight o'clock with Vice-president C. G. Plummer, in the chair.

Dr. G. Hudson-Makuen, of Philadelphia, delivered his address as retiring president, taking for his subject, "Some Measures for the Prevention of Crime, Pauperism, and Mental Deficiency."<sup>1</sup>

At the conclusion of the address, which was enjoyed by an audience filling the meeting room, the Academy adjourned to attend a very pleasant reception tendered to the Academy by Dr. Makuen.

## SESSION OF MONDAY, JUNE 4.

At the executive portion of this session, it was reported that the Council would issue credentials to any of its members who expected to attend the International Medical Congress at Paris.

An additional list of applications for fellowship was also reported. The secretary was instructed to cast a ballot for the Academy electing them.

The Council recommended the adoption of the following minute, which was agreed to by the Academy.

The American Academy of Medicine during the twenty-four years of its existence has championed the cause of the proper preparation of the physician, and in 1884 insisted upon (1) a proper preliminary education preparatory to the study of medicine; (2) a graded course of instruction in the medical school; and (3) a *state examination* for licensure in medicine. It is with a feeling of gratification that it notices the history of medical education since that time. At the same time, it recognizes the fact that it is a hardship to physicians equally prepared to practise medicine, should they desire to remove from one state to another, and recognizes the desirability of some plan permitting the change of residence of a properly fitted physician from one state to another without undergoing an ordeal primarily devised for the recent graduate.

"Therefore, the Committee on Papers for the 1901 meeting is instructed to arrange a symposium on the subject."

Dr. W. M. Carhart reported, for the Auditing Committee, that the accounts of the treasurer were found to be correct.

The Nominating Committee reported as follows:

For *President*, Dr. S. D. Risley, of Philadelphia.

See p. 1 of this number.

For *Vice-presidents*, Drs. C. M. Culver, of Albany ; Rosa Engelmänn, of Chicago ; G. G. Groff, of San Juan, P. R.; C. T. McClintock, of Detroit.

For *Secretary and Treasurer*, Dr. Charles McIntire, of Easton, Pa.

For *Assistant Secretary*, Dr. A. R. Craig, of Columbia, Pa.

The nominations were accepted by the Academy and the persons named elected, the secretary casting the ballot.

The reading of papers was resumed ; the first one for the day was on " How One College Endeavors to Teach Social Health Problems," by Dr. Charles McIntire, of Easton. This was the concluding paper of the symposium and the whole series was made the subject of an interesting and profitable discussion.

At the conclusion of the discussion the following papers were read and discussed.

#### BEFORE LUNCHEON.

1. " The Opportunity of the Small Medical College," by Dr. Bayard Holmes, of Chicago.

2. " Neglected Clinical Opportunities in American Medical Centers," by Dr. S. A. Knopf, of New York.

#### AFTER LUNCHEON.

3. " Psychology as Preliminary to Medical Education," by Dr. W. J. Herdman, of Ann Arbor.

4. " Some Experiences of a Volunteer Surgeon in the Philippines," by Dr. H. P. Ritchie, of St. Paul.

5. " Physicians vs. Medicine Proprietors and Medicine Patentees," by Dr. A. Ravogli, of Cincinnati (by title).

6. " 'Good Form' in Professional Cards," by Dr. Charles McIntire, of Easton, Pa.

7. " The Necessity of Expert Supervision of Medical Items Printed in the Daily Newspapers," by Dr. Walter L. Pyle, of Philadelphia.

8. " The Mission and Duties of the True Physician," by Dr. C. F. Ulrich, of Wheeling, W. Va.

9. " Social Hygiene," by Dr. Elmer Lee, of New York.

10. " A Few Notes Concerning the Relation of the Academic

to the Medical Course," by Dr. Howard S. Hansell, of Philadelphia (by title).

After reading the papers, the Academy held an executive session, when the Committee on Formulating Principles for Specialism and Medical Advertising made a final report which was adopted.<sup>1</sup>

The Council recommended the election of several applicants for fellowship.

The papers read at the meeting were referred to the Council.

Dr. Risley, the president elect, not being present, it was resolved to defer his introduction to office until the social session.

The Management of the Shelburne, and the Committee of Arrangements received a very cordial vote of thanks for their forethought in arrangement and painstaking care of the Academy during the meeting.

Several resolutions were introduced and referred to the Council:

By Dr. Elmer Lee, changing the time of meeting from the Saturday and Monday previous to the meeting of the American Medical Association to the Friday and Saturday of the same week.

By Dr. G. W. McCaskey, to fix the time limit for the reading of papers to fifteen minutes.

By Dr. L. B. Tuckerman, to appoint a Committee on Nomenclature to establish a standard of medical and biologic nomenclature.

A recess was taken at this point until seven o'clock, when the Academy reassembled for the social session, which came quite up to the mark previously set for this function. Just before adjournment the retiring president, Dr. G. Hudson-Makuen introduced the president-elect, Dr. S. D. Risley, thus completing the business of the 25th annual meeting.

#### LIST OF FELLOWS ELECTED AT THE ATLANTIC CITY MEETING.

G. A. Aschman, Wheeling ; H. G. Brainerd, Los Angeles ; C. G. Chad-dock, St. Louis ; E. C. Christian, Pontiac, Mich. ; Judson Daland, Philadelphia ; Richard Dewey, Wauwatosa, Wis. ; J. L. Dickey, Wheeling ; George Dock, Ann Arbor ; J. A. Elmore, Boston ; Ella B. Everitt, Philadelphia ; D. C. Hawley, Burlington, Vt. ; M. L. Heidingsfeld, Cincinnati ;

<sup>1</sup> See page 16 of this number.

J. H. Jackson, Fall River, Mass.; J. Addison Joy, Atlantic City; A. O. J. Kelly, Philadelphia; A. B. Lyons, Detroit; W. S. Magill, Amherst, Mass.; H. O. Marcy, Jr., Boston; W. R. Murray, Minneapolis; Horace Newhart, New Ulm, Minn.; J. D. Nisbet, New York; W. P. Powell, Atlantic City; W. Boardman Reed, Philadelphia; E. A. Reiley, Atlantic City; Thomas Snyder, Niagara Falls, N. Y.; George C. Stout, Philadelphia; Hugo Summa, St. Louis; G. T. Swartz, Providence; J. B. Walker, Philadelphia; W. Reynolds Wilson, Philadelphia.

FELLOWS AND HONORARY MEMBERS IN ATTENDANCE AT  
ATLANTIC CITY.

*Colorado*—Denver, Dr. Edward Jackson.

*Delaware*—Wilmington, Dr. Willard Springer.

*Illinois*—Chicago, Drs. R. H. Babcock, Rosa Engelmann, W. S. Hall,  
Bayard Holmes, J. S. Marshall, H. P. Newman.  
Springfield, Dr. G. N. Kreider.

*Indiana*—Fort Wayne, Dr. G. W. McCaskey.

*Kentucky*—Russellville, Dr. M. E. Alderson.

*Maine*—Augusta, Dr. O. C. S. Davies.

Lewiston, Dr. Alonzo Garcelon.

Portland, Dr. C. D. Smith.

*Massachusetts*—Boston, Dr. H. O. Marcy.

Fall River, Dr. W. T. Learned.

Monson, Dr. G. E. Fuller.

*Michigan*—Ann Arbor, Drs. W. J. Herdman, V. C. Vaughan.

Detroit, Drs. Leartus Connor, C. T. McClintock.

*Minnesota*—St. Paul, Dr. H. P. Ritchie.

*Missouri*—St. Louis, Dr. Hugo Summa.

*Nevada*—Reno, Dr. W. McN. Miller.

*New Jersey*—Atlantic City, Drs. W. E. Darnall, J. Addison Joy, W. M.  
Powell, W. Blair Stewart.

Bridgeton, Drs. H. W. Elmer, M. K. Elmer, T. J. Smith.

Trenton, Dr. William Elmer.

*New York*—Albany, Dr. C. M. Culver.

Buffalo, Drs. A. L. Benedict, J. W. Grosvenor, Roswell Park,  
De Lancey Rochester, C. G. Stockton.

New York City, Drs. L. Duncan Bulkley, W. M. Carhart, S.  
A. Knopf, Elmer Lee, Daniel Lewis, Warren Schoonover.

Syracuse, Dr. H. D. Didama.

*Ohio*—Cincinnati, Dr. M. L. Heidingsfeld.

Cleveland, Dr. L. B. Tuckerman.

Columbus, Drs. C. A. Cooperrider, E. F. Wilson.

Zanesville, Dr. J. C. Crossland.

*Pennsylvania*—Codorus, Dr. H. H. Jones.

Columbia, Dr. A. R. Craig.

*Pennsylvania—*

Delancey, Dr. T. R. Willimas.

Dubois, Dr. S. M. Free.

Easton, Drs. E. M. Green, Charles McIntire.

Norristown, Drs. J. K. Weaver, Mary Willits.

Philadelphia, Drs. W. B. Atkinson, J. M. Barton, G. G.

Davis, L. J. Deal, W. A. Newman Dorland, T. C. Ely, A.

A. Eshner, Ella B. Everitt, G. M. Gould, Guy Hins-

dale, J. W. Holland, W. W. Keen, Ruth Webster Lath-

rop, G. Hudson-Makuen, J. Cheston Morris, W. L. Pyle,

S. D. Risley, W. S. Stewart, J. Madison Taylor, J. W.

Walk, J. C. Wilson, W. R. Wilson.

South Bethlehem, Dr. W. L. Estes.

Waynesboro, Dr. A. H. Strickler.

Wernersville, Dr. C. H. Vinton.

Wilkes-Barre, Dr. O. F. Harvey.

*Rhode Island*—Providence, Drs. Helen C. Putnam, F. T. Rogers, W. R. White.

*Utah*—Salt Lake City, Dr. C. G. Plummer.

*Vermont*—Burlington, Dr. D. C. Hawley.

*West Virginia*—Wheeling, Drs. G. A. Aschman, J. L. Dickey, R. J. Reed, C. F. Ulrich.

The president has made the following appointments :

*Members of the Council*—Drs. Edward O. Otis, Boston ; J. L. Rothrock, St. Paul ; C. S. Sheldon, Madison, Wis. ; E. F. Wilson, Columbus, O. ; and W. Blair Stewart, Atlantic City.

*Committee of Arrangements*—Drs. H. P. Ritchie, St. Paul ; S. W. French, Milwaukee ; C. B. Nancrede, Ann Arbor ; C. H. Hunter, Minneapolis ; H. L. Staples, Minneapolis ; and Archibald McLaren, St. Paul.

*Committee on Program*—Drs. A. L. Benedict, Buffalo ; Edward Jackson, Denver ; Leartus Connor, Detroit ; with the president and secretary.



## SECRETARY'S TABLE.

For the reasons detailed in a recent circular letter to the fellows of the American Academy of Medicine, and in letters to the secretaries of the Association of American Medical Colleges, and the National Confederation, and for the additional reason that proof is read very deliberately during July and August, greatly delaying the issue, this number of the Bulletin returns to the older plan of issuing but a part of the transactions.

\* \* \*

"To err is human" is a statement of sufficient antiquity to be venerable and respected. Our correspondent in sending the statistics for Iowa (see page 721 of the last volume, June, 1900) wrote Med. Dep't *Kentucky* Univ. instead of Med. Dept. *Louisville* Univ. Anyone familiar with the history of the Medical Department of the Kentucky University would detect the slip at once as the department was not organized until long after 1884, the date of the applicant's diploma. Corrections should be made on page 788, as well as 721.

On p. 737 there is also an error. The fifth line from the top of page should read Toledo Med. Coll. 1—0—1, the totals then reading 29—16—45.

\* \* \*

The secretary of the Oregon Board very carefully compiled the returns, only to have them missent and returned to him after the June number was issued. They are inserted here to supplement the report already published.

## OREGON.

|                                    | Passed. | Failed.        | Total. |
|------------------------------------|---------|----------------|--------|
| <i>Arkansas.</i>                   |         |                |        |
| Med. Dept. Arkansas Univ .....     | 1       | 0              | 1      |
| <i>California.</i>                 |         |                |        |
| Cooper Med. Coll .....             | 1       | 0              | 1      |
| <i>Illinois.</i>                   |         |                |        |
| Chicago Homeo. Med. Coll .....     | 3       | 1              | 4      |
| Hahuemann Med. Coll. and Hosp..... | 0       | 1 <sup>2</sup> | 1      |
| Rush Med. Coll .....               | 3       | 1 <sup>3</sup> | 4      |

<sup>1</sup> Class 1892. Counted twice, passing second examination.

<sup>2</sup> Class 1874.

<sup>3</sup> Class 1892.

|                                       | Passed. | Failed.        | Total. |
|---------------------------------------|---------|----------------|--------|
| <i>Indiana.</i>                       |         |                |        |
| Central Coll. Phys. and Surg .....    | 0       | 1 <sup>1</sup> | 1      |
| Med. Coll. of Indiana .....           | 1       | 0              | 1      |
| <i>Iowa.</i>                          |         |                |        |
| Keokuk Med. Coll .....                | 1       | 0              | 1      |
| Med. Dept. State Univ. of Ia .....    | 1       | 0              | 1      |
| Sioux City Coll. of Med .....         | 0       | 1              | 1      |
| <i>Kentucky.</i>                      |         |                |        |
| Med. Dept. Central Univ. of Ky .....  | 1       | 0              | 1      |
| Med. Dept. Louisville Univ .....      | 1       | 0              | 1      |
| <i>Louisiana.</i>                     |         |                |        |
| Med. Dept. New Orleans Univ .....     | 1       | 0              | 1      |
| <i>Michigan.</i>                      |         |                |        |
| Dept. Med. and Surg. Mich. Univ ..... | 1       | 0              | 1      |
| Detroit Coll. of Med .....            | 1       | 0              | 1      |
| <i>Missouri.</i>                      |         |                |        |
| Homeo. Med. Coll. of Mo .....         | 0       | 1 <sup>2</sup> | 1      |
| <i>New York.</i>                      |         |                |        |
| Long Island Coll. Hosp. ....          | 1       | 0              | 1      |
| <i>Ohio.</i>                          |         |                |        |
| Columbus Med. Coll. ....              | 1       | 0              | 1      |
| Eclectic Med. Institute .....         | 0       | 1 <sup>3</sup> | 1      |
| Starling Med. Coll .....              | 0       | 1 <sup>4</sup> | 1      |
| <i>Oregon.</i>                        |         |                |        |
| Med. Dept. Univ. Oregon .....         | 10      | 0              | 10     |
| Med. Dept. Willamette Univ .....      | 2       | 0              | 2      |
| <i>Pennsylvania.</i>                  |         |                |        |
| Jefferson Med. Coll. ....             | 1       | 0              | 1      |
| Med. Dept. Univ. of Penna .....       | 1       | 0              | 1      |
| <i>Tennessee.</i>                     |         |                |        |
| Med. Dept. Tennessee Univ .....       | 1       | 0              | 1      |
| Med. Dept. Vanderbilt Univ .....      | 0       | 1 <sup>5</sup> | 1      |
| <i>Foreign.</i>                       |         |                |        |
| Univ. at Halle .....                  | 0       | 1 <sup>6</sup> | 1      |
| Imperial Coll. Tokio .....            | 0       | 1              | 1      |
| Total .....                           | 33      | 11             | 44     |

The Oregon Board, as at present constituted, consists of Drs. W. H. Saylor, president ; Byron E. Miller, secretary, The "Dekum," Portland, Or. ; W. E. Carll, treasurer ; G. W. McConnell and B. Gillis.

<sup>1</sup> Class 1888.

<sup>2</sup> Third failure.

<sup>3</sup> Class 1885.

<sup>4</sup> Class 1890.

<sup>5</sup> Class 1898.

<sup>6</sup> Diploma dated 1863.

The Committee of Arrangements for the 1901 meeting has selected the Aberdeen for the Academy's headquarters. We will celebrate our quarter-centennial at St. Paul, and already the indications are favorable for a successful meeting.

\* \*

The secretary is pleased to have an opportunity to call attention to the Department of Ethnology and Archeology in the coming exposition at Buffalo. The letter of Dr. Benedict makes his desire very clear.

DEAR SIR: The Pan-American Exposition has seen fit to entrust the care of the Department of Ethnology and Archeology to a practising physician. I should be very glad if you would allow me to reach your readers with the following request for assistance.

Many members of the medical profession are interested in the study of American ethnology and archeology and not a few have valuable collections of Indian relics and skeletons from Indian graves. Those not directly interested in this study are so circumstanced as to be aware of the hobbies of their neighbors and could doubtless furnish the address of collectors. I should be greatly obliged for information and for the loan of collections for the use of this department of the exposition. Exhibits which represent study in some special line of American ethnology and archeology will be particularly suitable.

Very truly yours,

A. L. BENEDICT, M.D.,  
*Supt. of Ethnology and Archeology.*

\* \*

The time for holding the meeting of the American Public Health Association at Indianapolis has been changed to October 22-26, 1900, the section on bacteriology and chemistry meeting on Monday the 22nd, the full association opening on the following day.

\* \*

The recent action of the State Board of Medical Examiners of New Jersey, as recorded in the following letter, is to be commended. Instead of selfishly insisting upon reciprocity, while carefully protecting its citizens, it expresses a desire to show every proper courtesy to the physician who has passed a state examination for licensure in medicine. This action will be of

invaluable assistance in securing a general interchange of li-  
scenes, which is so much needed in a nation constituted as ours.

CAMDEN, N. J., July 5, 1900.

At a regular meeting of the State Board of Medical Examiners held at Newark, N. J., this day the following resolution was adopted :

*Resolved*, That this Board will endorse the licenses of any State Board of Medical Examiners in the United States, in lieu of an examination, provided,

*First*, That the candidate for endorsement shall present satisfactory evidence of having the academic and medical education required by this Board, and,

*Second*, that the license presented for endorsement shall have been issued after a State examination of the same grade and kind as that required by this Board.

E. L. B. GODFREY, M.D., *Secretary*.

\* \* \*

The October number of the Bulletin will contain the papers on the "Medical Aspects of the Home," read at Atlantic City. These papers were thought to be of so much value that the council appointed a special committee to secure the circulation among those who are interested in such subjects. More especially, the more progressive of our school-teachers, leaders of Mothers' Cluds, and workers in similar lines of efforts. A number of extra copies has already been ordered. Should any of our readers desire to make use of the number for distribution among their friends, kindly send in the order promptly. A special price has been made for these extra copies if they are ordered before the type has been distributed. Correspondence is solicited.

# BULLETIN

OF THE

## American Academy of Medicine

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THE AMERICAN ACADEMY OF MEDICINE is not responsible for the sentiments expressed in any paper or address published in the BULLETIN.

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### THE MEDICAL ASPECT OF THE HOME.<sup>1</sup>

#### I.

#### THE ESSENTIAL CONDITIONS FOR HABITATION TO DEVELOP AND MAINTAIN HEALTH- FUL FAMILY EXISTENCE.<sup>2</sup>

BY ROSA ENGELMANN, B.A., M.D., Assistant Clinical Professor of Pediatrics, Rush Medical College, Chicago; Medical Inspector of Chicago Health Department; Fellow American Academy and Chicago Academy of Medicine, etc.

Sound family life conserves social stability. That element that differentiates man from animal is the home; *vis.*, a condition for rational development.

The primordial conception of home was merely shelter, manifest in the relics of prehistoric and savage dwellings. With the changing social-political fabric there is an evolution of housing consonant with advancing civilization.

Centers of population or great cities with their attendant crowding, congested areas, and tall houses, have existed since the earliest times. The tower of Babel was sixty stories, or from 500 to 800 feet high. Herodotus tells us of Babylonian houses four or five stories high. Jerusalem had eight and ten story buildings. Athenian law limited buildings for residence purposes to ten stories. Roman buildings were ten to twelve stories

<sup>1</sup> The subject of the symposium for the American Academy of Medicine for 1900.

<sup>2</sup> Read before the American Academy of Medicine, Atlantic City, June 2, 1900.

front, and fourteen to fifteen stories rear elevation, with some rooms eight or ten feet high and others not tall enough to stand in. Roman poets speak of lodgings into which "one must creep." The Medieval, feudal era finds humanity surging within the protection of city walls. Rheims had a curious law forbidding structures for residence purposes to be higher than the eaves of the cathedral. It is recorded when a building was going up that the sexton was enjoined to look out daily from the port-holes in the eaves to see that the structure was not being built higher than the level of his eyes.

All nations thus acknowledged their obligations as to proper housing. We of the 20th century have a broader, more intelligent realization of this social indebtedness. Native traits and social facts are expressive of communities just as dwellings translate their tenant's characteristics. The essential conditions of wholesome family life are health, character, intelligence, industry, frugality, mutual affection, and forbearance; and, finally, the means to provide *private* environment for the growth and maintenance of these qualities. Union of purpose and interest are scattered when the soundness of family life is broken into by promiscuous association. Self-sacrifice, warmth of reciprocal relations, and a proper sense of duty are lost by lack of privacy in the home. Such privacy is attainable only in separate houses preferably in the suburbs or country where the broad areas, wooding, fresh air, and sunshine, contribute to health and wealth. The increase and welfare of families are proved to be in line with increase in individual homes. Improved commercial conditions, with increased immigration, increases the activity of home builders and isolated country homes, and causes a 1.9 per cent. natural increase of population.

The city with its individualism, thronging humanity, and overflowing tenements, does not furnish good soil for the growth of the home ideal except for people of means who can avoid these conditions. Unfortunately the toiler's home ordinarily lies in crowded districts, in manufacturing colonies, in tenements where he is powerless to modify surroundings created by the greed or ignorance of those who live to "put money in thy purse." Air, light, and sunshine never enter such front and rear double

deckers. Filth and noise reign supreme. Water for drinking, let alone for culinary and toilet purposes, is often altogether wanting or inadequately supplied. Winding, dark, foul-smelling halls and stairways teem with pale, rickety, dirty children; for these, or the narrow, unsprinkled, uncleaned, garbage-laden, so-called streets, are their only playground. The same unlighted passage-ways are the meeting places of the young and older tenants, unless driven by natural craving for light, warmth, amusement, and even advice and good fellowship to the brothel or saloon,—the poor man's club. On hot nights our unwashed, next to naked, brother, is found gasping for breath either upon the housetops or upon the sidewalks, or cobble-paved streets. In Chicago I have seen the babes placed side by side on top of the garbage boxes for protection from the crush of sweltering humanity. Is it any wonder that modesty, chastity, cleanliness, and godliness are wanting, and that disease, prostitution, drunkenness, and crime prevail? New York City during its heated term often turns on its water plugs, the rush of water down the streets temporarily cleansing and cooling its miserable, sizzling, slum denizens. Think of a thirteen-year old high-school girl, a possible public-school teacher, who never in the thirteen years of her life had been in a bath-tub. When first placed there by a philanthropic friend, she turned white with abject fear and tremblingly clung to its sides. She, it was who piteously said "How nice it would be could we have a water faucet in our house." This house, perhaps, and others like it or worse, belong to a philanthropist who inconsistently has given millions for settlement and educational purposes. New York City's Grace Church's Corporation's right hand likewise has no knowledge of what its left hand does. Such are the deplorable conditions that make families indifferent to the common proprieties of life, lead to deliberate debauchery, make the tenement house a synonym for unwholesomeness, degradation, and a menace to republican government. Again think of the unfamiliarity of many children with flowers, green grass, or trees and here in Chicago, our beautiful lake. Jacob Riis tells of the boy who, upon being taken to the country and seeing cows chew their cud, asked, "Say Mister! Who pays for all de gum dem cows chew?"

What matter if occasionally we find the bath-tub used as a crib for the twins, or as a place in which to salt down the pork or store the coal.

On cold days think of people huddling and crowding in dark, vermin-reeking rooms where noise and indescribable odors prevail; where babes and food are pushed under the beds to be withdrawn as occasion demands; where contagion and death lurk; for here live the vegetable hucksters assorting their wares, and later selling them on the avenues. Here also live the sweaters, furnishing the well-to-do with unclean, disease-laden garments. Here live our little three and one-half year old babes sewing on labels, their mothers stitching for starvation wages so that our thoughtless, bargain-hunting women may buy cheap underwear. Here live the necktie makers with aspirations for higher things. In fact here live an army of pants, coats, vests, buttonholes, neckties, wrappers, ladies' skirts and coats, shirt waist, and underwear makers. Is it any wonder that tuberculosis, syphilis, and gonorrhea run riot, and in spite of the high infantile and contagious disease mortality of the slums, that diphtheria, scarlet fever, measles, whooping cough, etc., creep into and find firm footing in our comfortable homes and palaces?

General, maternity, children's, seaside, and floating hospitals, foundling asylums, insane hospitals, epileptic colonies, institutions for defective and delinquent children pay both deplorable and generous tribute to such awful surroundings. It costs London alone 15,000,000 pounds a year for sickness from bad housing. What a blot on our much-vaunted civilization is the *very existence* of laws pertaining to dependent and delinquent children, juvenile courts and reformatories, not to speak of adult crime and jails! Eighty per cent. of New York City's crimes are committed by persons who have never had a home. Read the following arraignment of Sing Sing's convict No. 315, in the "*Star of Hope*" and reflect. He says of the criminal of circumstance or environment: "Society's crime against this class of evil-doors is our toleration of the city slum." "The accidental criminal has the recollection of better days and better things to cheer him. His memory harks back to other times and scenes. His idols may be shattered but his ideals remain and with their aid he can



fathom the depth he has fallen ; and he can with the help of God and the outstretched hands of those who love him, struggle from out of the slough of evil, back to the narrow path again. But the criminal of circumstance is denied this. His memory holds no picture of a clean, sacred home life, no recollections of a happy childhood, but instead, it is always the streets and the foul, evil-smelling brick barriers that form the background of the picture ; phantoms of slatternly women and emaciated, crying babies ; miasma of foul smells ; and recollections of hunger, cold, drunkenness, and disorder. His first recollections of law and order are indissolubly associated with the policeman, his natural enemy, the despoiler of his youthful pleasures."

The slum and tenement evil is engaging the attention of the broad-minded, thinking public of all the larger commercial centers.

Lord Shaftsbury influenced England's parliament as early as 1851 to legislate and authorize municipalities to clear insanitary areas and to provide lodging- and dwelling-houses for the working classes.

London, Glasgow, and Manchester, with their model tenement, lodging-house, and suburban-home system, toiler's clubs, coffee houses, reading rooms, and social settlement have taught the world what can be done to lessen this organic disease (the tenement evil) preying upon national existence.

New York, Boston, Philadelphia, Brooklyn, Dayton, and many other American cities later assumed this civic responsibility. Notwithstanding past and present agitation there is still open and flagrant violation of health laws governing the construction, equipment, and care of tenements. With absolute divorce from politics, health departments should be given larger powers to strictly enforce their regulations and to add to their resources and authority. The municipalities of the old and private enterprise in the new world, have proved that model tenements pay from four to five per cent. and from five to six per cent. respectively upon their investment. A three to four per cent. remuneration is received from model lodging-houses.

Such model tenements are built with outside public staircases and private halls with apartments of two light rooms, with scul-

leries containing sanitary wash-tubs, sinks, and water-closets properly lighted and ventilated. Artificial lighting and a hot water supply are also added, and often common laundry facilities, as well as club rooms and libraries, provided. These tenements also have interior parks with fountains, playgrounds, and sand heaps for the children, and weekly band concerts. And mind you! this is upon a paying basis as well as brought within the means of the poor, three-fourths of whom are deserving and who will live comfortably if but given the opportunity. Fifty-two to sixty cents a week is the average for one room, while one dollar and fifty cents and upwards will pay for the two room apartment and scullery above described. As types, the Riverside Building, of Brooklyn, and the Mill's Hotel, of New York City, show that our toilers appreciate and take advantage of facilities offered for good housing and living. In spite of the evident benefit of these model tenements they cannot compare to a detached suburban house with its atmosphere of privacy, health, and real home spirit, with flower garden, vegetable patch, chickens, cats, dogs, and maybe even a cow and some pigs. No small city parks, playgrounds, or public baths, so necessary to crowded areas, can take the place of these things that the country furnishes.

A proletariat writes, "bay windows and front door-bells, and baths are the two civilizing agencies of the highest good to the laboring people." In the words of another the isolated home should be a land-locked harbor, a refuge, a school for building of character and of future usefulness; a place as Lyman Abbott says "More important than the church." A place where the mother trains her boys and girls to work and help each other so that when their time comes for going out into the world they are well prepared to take up life's joys, burdens, and struggles.

Suburban housing companies have demonstrated that this system is both practicable and remunerative. Suburban homes wherever and whenever possible should supercede even model tenements. Our much-respected fellow Dr. Leartus Connor, very recently speaking of the city boy, said: "When he would shout, he must keep still; when he would run, he must walk; so that we are coming to look upon the country boy who has healthful surroundings and normal development as the salvation of

mankind." To reach the city outskirts, and the country, the bicycle has become a cheap and important means of transportation. The much-abused trolley line is another factor of consequence. Rapid and cheaper transportation is one of the crying problems of the day. Lower rates and better service should become local political issues. Working men must combine and lead, not be led in municipal affairs. He must oftener use his influence, his vote, his greatest power, for the enactment and enforcement of sanitary laws as applied to labor. He must see to it that his son's and daughter's employment is made healthful and effective by sanitary environment and shorter hours ; that woman and child labor, so destructive to the home, be restricted or abolished ; that adequate school accommodation be supplied ; that parental, vacation and industrial schools supplant corrective and penal institutions ; that libraries, clubs, and social settlements dislodge the dive and saloon. Let him become an active power for good in his own immediate neighborhood. When leisure and prosperity comes let him not be indifferent to his civic duty, that after all so nearly concerns his private comfort. The most hopeful sign of the age is the widespread knowledge and interest in the present, and our fellow man rather than in the future and our own future state ; for as we sow, we reap.

## II.

### ON THE INFLUENCE OF EARLY TRAINING OF MANLY AND WOMANLY QUALITIES, TO AVOID DEGENERACY.<sup>1</sup>

By J. CHESTON MORRIS, A.M., M.D., Philadelphia, Pa.

A wise old grandfather sat reading a volume of travels through the far East as well as he could while his attention was, in spite of himself, drawn off by the earnest pleading in a subdued tone of his daughter with her romping, wayward child, a wilful wee lassie of four or five summers. The little one pouted resentfully at some course of conduct urged by her mother, who said, "Don't you think you *ought* to do so?" Laying aside his book, the old man said, "Mary, why should you perplex and trouble that little tender brain with a task which we grown-up people, after so many years of bitter experience, find so hard if not impossible for us—to *know* our duty, and to *do* it? Would it not be better and kinder for the child, to tell her she *must*—to let her learn by the results of obedience the benefit of submitting her will to proper guidance of authority?"

Ah, how many deep questions are raised by such a simple anecdote? And what is the right course to pursue? When does the child's mind receive its first impressions? What effect have they upon its subsequent development? Which one of us is fitted, is strong enough, is good enough voluntarily to undertake in his own wisdom to guide and train these little ones? Which of us appreciates this responsibility of parenthood?

We say indeed with the Roman sage "Maxima debet pueris reverentia," but which of us stops to think that a child learns much more quickly by imitation than by precept? Nothing can efface from my own memory the shock to my moral sensibilities which I received when not four years old. I heard a lady, whom I rightly revered as the very soul of truth and honor, tell her servant to say to a gentleman, who had called to see her, that "she was not at home." To my mind it was a lie, and, coming whence it

<sup>1</sup> Read before the American Academy of Medicine, Atlantic City, June 2, 1900.

did, went far to unsettle my belief in the truth and trustworthiness of any human being. And when we recall that even the games of children are, as Prof. Stewart Culin so well shows us, in many instances the echoes of the religious exercises and worships of their ancestors, or trainings for the avocations by which their parents gain their livings, are in fact repetitions and rehearsals "*mutatis mutandis*" of the acts and views of their elders and associates, which of us does not feel that he must tremble at the thought of how many things there are in his life, or at least in "the chambers of imagery in his heart," which he would be loath to display before these little innocent ones? and yet it is what we *do* rather than what we *say* that they will follow.

The Rev. Dr. Boardman, in his "Bible in the Family," pithily remarks on the earnest appeals often made to him as pastor by parents who urged him to endeavor to save their sons from irreligion and ruin—temporal and spiritual. "What can a pastor, who sees them at most an hour or two in the week, do to counteract or offset the daily, hourly effects of the lessons of your lives?"

But to go back to my story. Not long after the moral lecture noted above, and the criticism upon it by the wise old man, the child was sent upstairs to play. Now one of her little peculiarities was a hatred of having her face and hands washed, a process usually accomplished with accompanying sobs, struggles, and kicks. Hearing an awful racket upstairs, the mother rushed up to find her own little Mary standing at the basin washing her own face and hands, and kicking and screaming like one possessed. Duty had triumphed in her—she felt she ought to wash her own face and hands, but the kicking and screaming were habitually part of the process, so she carried the whole thing out completely, all by herself.

The patient little mother's lesson was not lost, nor did it fall on barren soil. Many were the weeds of self-will, many the tares of error strewn around; but little Mary learned gradually to root them out and cultivate the womanly graces which brightened the declining years of her grandfather and still glow to cheer the heart of her mother and to continue the blessed influences of self-control to generations to come.

Which was right, the wise old man, or the patient mother? Both,—the reign of law, and the influence of patient example.

Both are necessary—are the complements of each other. Kingsley, in his inimitable "Water Babies—a Fairy Tale for Land Babies," tells us of the two fairies "Mrs. Be done by as you did" and "Mrs. Do as you would be done by," and shows them melting into one and the same beneficent fairy; and to my thinking, gives the wisest answer to the question of what can be done to prevent or check moral deformity or obliquity.

Another wise old friend of mine who has just passed to his rest, the late Chas. E. Smith, the former president of the Philadelphia and Reading R. R., told me that in his long experience he had never known men's characters to radically change after they were eight years of age. The boys who were sneaks at school were sneaks when he met them forty years after; the honest boys were honest men. And I am satisfied that in the long run he was right. Our characters are molded and formed before we have completed our second dentition—the man or woman is then made or marred. Circumstances may change or develop, but the type is fixed. The motive or impulse may vary, but the man is the same. The early years are the plastic ones, and sooner or later what is bred in the blood will come out in the bone.

We cannot all of us be wise all the time—"Nec semper arcum tendit Apollo"—but we can be truthful, simple, patient, faithful, and courageous, if we are true men.

We can show these qualities in our every-day life. I feel sure that this lies at the root of the matter. Be, not merely seem to be, what you wish the child to be. Children are close observers and soon detect any mere imitation. If you are satisfied merely to *imitate* goodness, your child will soon learn to do the same. If you are quarrelsome, hasty, nervous, selfish, such will your child become as soon as it dares to think and act for itself. Its education begins with the first breath it draws.

There is no doubt in my mind that much of what we call inheritance of character is nothing else than the result of this unconscious imitation, which human beings practise incessantly, from our earliest to our latest breaths. And the mistake usually

made is in delay to bend the twig while it is yet young enough, tender and pliable enough to bend without breaking; or as I have often illustrated it to young mothers: When is it easiest to train your child (his will being in proportion to his length) when he is eighteen inches long, or two feet, or three, or four, or six feet? We recognize readily this law in everything else in life—in training dogs and horses. I saw it well exemplified once by a pea-fowl, who trained her little chicks to walk carefully and circumspectly between her feet instead of gadding around promiscuously, as her vulgar young turkey neighbors were doing. Such was her pride of high breeding.

Do not then fear to begin your training too early, if you wish it to be effective. While preparing these remarks, my eye fell upon an article in the *Philadelphia Record* (March 8, 1900), which is in such close accord with my belief and experience that I here append it.

"Although it may be considered simply old maid's advice, I cannot help commenting upon certain methods of child-training noticed in my immediate circle of friends," said the feminine observer. "If all women were as sensible in their estimate of what a little child can understand and do, as some mothers I know, we should have far fewer exhibitions of 'spoiled children.'

"So many mothers think that a little child cannot understand, and when they at last realize that the child won't do what they ask, and that he understands perfectly, the will of the child is so strong that the mother is appalled at the task before her, and usually yields for the sake of peace, to the detriment of the child.

"A friend of mine believed that her six months' old baby could understand what she meant. She placed him in a little chair. He raised himself in such a way that she felt sure he understood, and didn't want to be put there. She put him down three times, and each time that he raised himself she gave him a little slap, at which, of course, he cried, and tried to raise himself again. But the slap was repeated. This time the child sat still. Next day the same operation was repeated. This time the child sat still. Next day the same operation was repeated, but with the first little slap he sat still, and never after that was there any trouble about his sitting in the chair. The mother was decided, and intended he should do as she wished, and he understood.

"I know two little girls, each about a year old, both of them precocious. You say to one 'Good girl,' and she laughs and crows. You say 'Where is mamma's good girl?' when she has been playing with some forbidden thing, and she will immediately cry, showing that she understands.

"The other little girl, just as bright and quick, has no comprehension of good or naughty, is self-willed, and screams when crossed in any way, the parents always yielding to her wishes so that she will stop screaming. She has never been trained to understand. Her parents think she is too young. The first little girl cries when denied anything—hard, and with a will—showing that temper is there, but it never lasts but a moment or two, as she never gets what she cries for, and we think she understands, and as she gets older will not cry at all when denied. Which mother is doing the best for her child, for herself, for humanity and the world?"

I have seen the ten-year old son of an honored merchant come bawling home from school, throw himself on his doting mother and tease her till she gave him half a dollar to squander in ice-cream, cakes, candies, and soda-water; at fifteen he was so unruly and incorrigible that his parents were induced to send him to a boarding-school 200 miles away, only to be overpersuaded by him to go and bring him home, after a few weeks of such training as might have even then done much for him. His mother died, worn out by his waywardness, not long after; and an aunt, whose favorite he was, tried, by bribing him, to keep him in respectable bounds, but in vain. At twenty he married the daughter of a saloon-keeper here at Atlantic City, without any employment or means of livelihood except what he could borrow from his aunt or literally steal from the pocket of his father, who had to fasten himself up in his own bedroom with a dead-latch on the door to avoid his speculations. Drunk when his child was born and neglectful of his young wife—dead drunk and so unfit to be present at the funeral of his child—he brought his father's gray hairs with sorrow to the grave, ran the usual course of dissipation, all for lack of firm judicious training in his early years. Which of us, however, cannot match, or probably exceed, this history of a pampered life and its results?

I am reminded forcibly of our Secretary Dr. C. McIntire's excellent article "On the Case of Prof. Stevens, the Incendiary of Pardee Hall—Insane or Criminal?" as illustrating the effect of early training, or rather the lack of it.

Another illustration, on a large scale, was afforded by the results of our Civil war. Some of us are old enough to remember the "Young America" of the fifties, and what a nuisance he



made of himself. Four years of discipline taught the young parents of that time the necessity of obedience to law and order, but at what a fearful price of blood and suffering !

When the war was over, a million homes on this continent had learned the lesson in greater or less degree ; and the effect on home discipline of army training is still perceptible. May not this be one of the reasons why wars are allowed to mar the history of the human race ? Their educational effect is not all bad, especially as thus indicated. And we may see again in the tendency of our own time to-day, unfortunately, a lack of proper wielding of authority on the part of parents as to the studies their children shall pursue and their earnest devotion to them, which I am sure every educator will join me in deprecating. Our children go to school or college to be amused rather than to study, to play football or row races (or bet on them) rather than to fit themselves for the earnest duties of life, and the teachers are obliged to cater to their fancies instead of training them to think and act rightly for themselves. To be successful they must be popular with their pupils, who rule their parents. This is indeed a work in which our Academy may well engage ; for if the primary foundation of education is not well and securely laid, all the superstructure is insecure and often worse than worthless.

But I find myself tempted away from my subject. I may summarize my suggestions thus :

Be, not merely seem to be, what you wish your children to be.

Begin with them early ; and

Begin with ourselves, *Now* !

The ancient Persians trained their young nobles, as Xenophon informs us, " to shoot, to ride, and to tell the truth," which may be paraphrased " to use their physical powers, to exercise control, and to seek knowledge," all for a purpose.

Cannot we Christians do at least as well, or better ?

### III.

#### MEDICAL SUPERVISION OF GROWING CHILDREN.

BY JOHN MADISON TAYLOR, A.M., M.D., Philadelphia, Pa.

It is a curious commentary upon our progressive civilization that infants and children receive but meager and utterly inadequate direction in their physical growth, whereas the breeder of domestic animals fully realizes the importance of technically skilled supervision from the prematernal stage all the way to full development, with conspicuous and increasingly good results. For the human young there is as yet no such recognition. These domestic animals have steadily improved in many important respects and along carefully foreordained lines, rendering them better fitted to meet requirements thus thoughtfully and practically outlined.

Human beings enjoy no such care unless it be that in school life they are so fortunate as to fall, by some happy accident, into a situation where developmental methods are fairly appreciated. In many of the schools this subject is acquiring some attention, as is plainly shown by excellent results among boys and happily hinted at by the bettered condition in some academies and colleges for girls.

The animal in its wild state, living under the customary and natural conditions, is in a state of perfection. The young live and grow symmetrically ; they are in a state of peace, at least as to their subjective conditions and the result is uniformity of development and they thus gain a practical similarity in size, structure, and intelligence. This is true with small limitations of all animals who are not artificially modified by the influence of man. Take as an example the deer of our forests whether absolutely wild, or raised in a park. Almost everyone is precisely like in conformation, proportion, and activity to every other one of its sex and age.

Not so the young of human beings nor domestic animals, and for a large variety of reasons, among which are dissimilarities in environment, food, opportunities for normal activities, hours for

<sup>1</sup> Read before the American Academy of Medicine, Atlantic City, June 2, 1900.

rest and recreation, and the warping influences induced by moral and social conditions. For them it is impossible to avoid the changeful impulses due to striving ambitions, even when these are employed only to secure the bare necessities of life. Much more so when, as is usual, the parental tendencies are early imitated which may stimulate worthy desires or the reverse.

However, it is obvious that a child must require much more than mere opportunities to reach perfection. Not only are these opportunities widely at variance in degree as well as kind, but the normal impulses of the child are not to be depended on, to select as well as to pursue the best conditions.

The real need, as shown by the well-proved dicta of Froebel in the matter of moral and mental training, is that the foundation of progress be laid in the very morning of life. Froebel insists upon beginning his methods between the ages of three and six years, and we would claim that as a rule carefully determined plans of physical education should begin quite as soon, or earlier.

The province of the physician is still limited, in great measure, to the relief of actual illnesses. He is called upon first to meet and repair the effects of disease and to aid in the relief of obvious disturbances or deformities or departures from anatomic normalities. He is thus often fortunate in being the first one to note defects in children under observation, or to offer advice as to peculiarities in others of the family thus accidentally revealed.

Although he may have noted some points warranting attention, custom forbids his obtruding his counsel unasked, and no self-respecting man will assume the privilege of offering advice in advance of its being sought. And this, moreover, in contrast to the customs of some semicivilized nations, as the Chinese, among whom, rumor reports, that the physician is paid to supervise and maintain in health those under his charge, and suffers a deduction from the regular fees till this repair has been duly accomplished. It is obvious then, without enumerating the how and wherefore, that a skilled medical adviser could and would quickly see and correct many conditions thus presented to his observation and privileged control.

The point which seems most difficult to emphasize is that parents do not realize how needful skilled supervision assuredly

is during the very earliest developmental and formative epochs. Others as well as myself have repeatedly pointed out the pitiable ignorance of parents as to the physical needs of their children. The parental attitude is almost altogether an accidental one. People marry for instinctive reasons mostly, and children come in the way of nature and are usually secondary considerations or fortuitous accidents; too often a surprise and alas, not always a welcome result, and only rarely do they bring unalloyed joy.

Motherhood comes as a possession, distinction, or martyrdom, as it may be variously viewed by the owner; much trouble and expense is too often taken to avoid the title, or at least the frequent repetitions of the blessing. It is safe to assume that few mothers realize their responsibilities; almost none distinctly look forward to the position as worthy of careful thought and special training in the prematernal months. A few wake up to their duties later and hastily devour certain little books called "Mothers' guides," in the hope of acquiring the wisdom and experience of a lifetime in the perusal of a scant monograph; and even these are usually written by well-intentioned but rarely wise or authoritative persons. And yet upon the guiding brain and heart of the mother will usually depend the fundamental structure building of a sentient being who goes forth as an influence in the land, a factor in the commonwealth; at least a responsible actor in society.

It is a matter for constant surprise that such good results come from such accidental guidance as does ordinarily follow this haphazard up-bringing. It is a plain deduction, however, that better citizens would grow from a more skilfully directed start.

The practical point for us to here consider is how can the young child secure the best preparation for life-work in the formative epoch, which is from birth (or shortly before) till capable of acting responsibly by means of its own corrected impulses. Much depends on the state of the mother before the birth of the infant—a long and important story—but briefly this. There must be for her a fair realization of her responsibility. Her life should be guided upon principles of physical conservation and mental tranquility. This involves no sacrifices in the ordinary exigencies of society, except indeed the omission of needless

strains and excitements, thoroughly possible in whatsoever social plane she exists, even in conditions of actual want.

Each of us enjoys the conviction that he is adequately developed. We may admit that in this or that particular direction we might be improved to advantage, but it is revolting to our consciousness to confess ourselves or our children to be seriously lacking in any important particular. As is true of individuals so of nations and races. Taken by and large, the average of individuals in a particular race marks the type. An estimate of the inherent qualities of this type enables predictions to be made of the power and stability of a people. This study involves a search into the positive qualities and also the negative or degenerative tendencies. Till very recently this last has been done mainly by guessing or along varied lines of probability; nowadays, thanks particularly to the Italian students, we are enabled to learn from scientific sources, certain truths and laws. Students of sociology have now an increasingly firm ground on which to test observation and to base conclusions. Among the most important departments of this research is child study, about which a mass of information is now growing up, collected chiefly by certain psychologists and pedagogues which already furnish much data of practical utility.

This is supplemented by valuable information on the part of kindergartners, and we may look for great things at their hands in the near future, especially when they, or some of them, more clearly realize the essence of Froebel's concepts; and, above all, when the leaders in this field of thought get rid of an over-exuberant optimism which often mars both their observation and conclusions. Not for one moment would we wish to note a lessening of their faith in human possibilities, for only by an overstretching of optimism can the highest results be obtained; but for the accuracy of conclusions it is essential to base them upon actualities, not upon desiderata. Again we are about to be materially aided by a new and growing tendency on the part of mothers in all parts of the land to observe and record with loving yet critical care, the buddings of the normal consciousness and impulses of their infant treasures, as these grow day by day on their own breasts. So far little, if anything, has been done by

these maternal teachers in the way of noting the variations and shortcomings in their subjects. Few mothers are trained to recognize the normal increments of activity, much less to estimate variations from the normal. Aside from this most natural limitation it is not to be expected, however, much as it might be hoped, that they would, or could, judge calmly and dispassionately of such shortcomings. And yet consider how invaluable would be information thus afforded to remedy the defects, to apply remedies and afford opportunities for better development of both bodies and minds.

Those of us who believe these things are fully alive to the practical difficulties in the way of formulating any specific recommendations which can be generally accepted by parents.

It is a legitimate conclusion, however, that children fail to receive, in our present state of civilization, the attention to their physical development which they assuredly deserve, and which it is fair to assume they will get in the future. This shortcoming is quite as obvious among the well-to-do as the poor for various sociologic and other reasons. Among the poor, opportunities are steadily increasing for spontaneous growth and betterment, due to hygienic improvements, municipal and private, and to school supervision. Among the rich this could and should be so amplified by skilful and early direction that families might be made to enjoy a large immunity from many preventable diseases, deformities, organic defects, and degenerative tendencies.

#### IV.

### THE HOME AND THE SCHOOL.<sup>1</sup>

By E. STUVER, M.Sc., M.D., Ph.D., of Fort Collins, Colorado.

The home—and under this term I shall include the hereditary acquisitions, the health, mental capacity, and character of the parents—is the bulwark of national security, the mainspring of national progress, and the hope of a higher and better civilization. The individual is born, passes through his short cycle of existence, propagates his kind and dies, and the world knows him no more, but he leaves his impress on the race for many generations of the future. If the parents are strong, healthy, and vigorous physically; if they have properly developed brains and well-balanced minds; if they have high moral characters and noble aspirations, they will transmit more or less of these potentialities and characteristics to their children and help to raise mankind to a higher and happier plane.

If, on the other hand, they have weakened or diseased bodies, imperfectly developed brains, and weak unstable minds or have become victims to narcotic poisons, have formed evil habits or acquired criminal tendencies, they will transmit the tendency towards these various physical, mental, and moral imperfections to their children, just as surely as a stone thrown into the air tends to return towards the center of the earth, or the sun in its diurnal course rises in the east.

I do not wish to be understood as underestimating the great importance of the environment in molding, shaping, and directing the destiny of the man, but while conceding this I do desire to emphasize the far-reaching importance of heredity. To appreciate the responsibility resting upon us we must know that every child is born into the world with its faculties given to it once for all; that no power can be put into it which is not there already. Its parents and a long line of ancestors have determined of what nature it shall be. As it grows up and we fancy we can fathom its capabilities and gauge its strength, we forget the countless capabilities that lie hidden in the simple germ.

<sup>1</sup> Read by title before the American Academy of Medicine, Atlantic City, June 2, 1900.

Every individual passes, as it were, down the vistas of a spectral avenue in which his forefathers stand ranged in counter lines and their dead hands beckon and direct him at every turn of the way. They impress upon his body, his mind, and his character, the influences and potentialities which have been accumulating throughout the ages.

With these fundamental principles clearly in mind it ought to be evident to everyone that, in order to secure the highest and best type of the home, the requisite of greatest importance is the physical health, mental integrity, and moral purity of the husband and wife, the father and mother of the home.

As long as the victims of tuberculosis, cancer, syphilis, and other hereditary or transmissible diseases marry, we shall have diseased offspring, lowered vitality, and physical wrecks. As long as mental and moral incompetents and defectives are permitted to marry, we shall have as the result of these unions an army of defectives, insane, and criminals to transmit their defects and vices, and curse our nation and race.

The natural and logical inference to be drawn from this proposition is that greater care should be exercised in entering upon the marriage relation, and more rigid legal restrictions should be placed in the way of its consummation. Young people should be thoroughly impressed with the importance and responsibility of this step and be clearly shown that not only their own health and happiness, but the health and welfare of their children depend on the physical, mental, and moral condition of the life partners they select.

While to a well-balanced and rational mind it would seem that the mere mention of these facts ought to secure the active support of all sensible people, in an earnest effort to overcome the evils, still the truth remains that very few can be aroused to take any interest in the matter.

Persons who exercise the greatest care in selecting the best stock for breeding horses, cattle, sheep, dogs, and even hogs, give scarcely a thought, save in some instances a mercenary one, to the life partners of their sons and daughters, and permit their grandchildren to come into the world loaded down with a burden of disease, and a tendency to vice and crime which they might



have prevented. If the old-fashioned custom of announcing marriages beforehand were generally adopted, many hasty and unfortunate unions would be prevented. We thus see that the most important requisite of the family is that the parents be all right and the children well born.

Then too, parents and especially mothers should have a clear knowledge of the proper nurture and care of their children. Such a knowledge as this might not enable them to make such a brilliant show in public as their present smattering of music, painting, and other so-called accomplishments does, but it would be of infinitely greater value and bring much greater happiness and comfort to themselves, their children, and the world than all the superficial accomplishments by which they can be graced. I do not want to be understood as opposing music, art, or any other accomplishment because properly pursued they are highly commendable, and the source of much gratification and pleasure but I do desire to urge that they be confined to their proper place and not allowed to crowd out more important matters. As the dessert of life they should be confined to the dessert's place, and not allowed to monopolize the whole meal. The knowledge that will enable a young woman to make good bread, cook foods so as to retain their sapid and nutritious properties, keep her house in a neat and orderly condition, feed a baby without poisoning it, and be able to handle it so as not to endanger the integrity of its spinal column, is of far greater value in promoting her own comfort and the welfare of her loved ones than a knowledge of Greek, Wagnerian music, or any number of accomplishments could be. And in order that you may not have reason to accuse me of being narrow and one-sided I desire to say further, that I believe there are some things equally incumbent on the young man. He should have a knowledge of sanitary and hygienic laws and enough moral stability and manhood to prevent him from thinking that he must "sow his wild oats," and form the intimate acquaintance of a very ubiquitous and prevalent germ in order to escape the designation of "*mewling milksop*," or some equally opprobrious epithet, and I further believe that moral and decent people should set the seal of their condemnation on the existing double standard of morals. Men

who hold high official and social positions should be held to a strict moral accountability, and it ought to be made impossible for men who hold high positions in our educational institutions to use language which encourages sexual immorality, and an unbridled indulgence of the passions. "A group of young men with the hot blood of youth running riot in their veins, their hearts on fire with passion and stung by an oestrus-like desire to fathom for themselves the secrets of the unknown life that lies in all its strange, mysterious fascination just beyond the college walls—how much will the teaching of another man's experience stand for in the minds of such as these? Some *mewling milksop* here and there may possibly accept that teaching and remember it; but *mewling milksops* do not count in the general scheme of life" (*Cosmopolitan* July 1897, p. 268). Such conditions as these words depict, furnish the strongest kind of an indictment against the old classic system of education which this author so ardently advocates. Dwelling on the laciviousness, indecency, and immorality of Greek and Latin literature with an occasional plunge into the foul stream of modern aristocratic amours, is it any wonder that the modern college student with such ideals constantly before his mind has sunk to the depth of degradation depicted by the brilliant writer? Is it any wonder that such a large percentage of young men suffer from venereal diseases and their wives and children are the victims of their unbridled lust?

With properly endowed parents the children will possess the first and essential requisite for complete living; that is, they will be well born. As soon as they are born, however, the struggle for existence commences and they must at once begin the work of adjusting themselves to their environment, and right here is where the knowledge and preparedness of their parents exerts such a benign influence.

If the mother is properly prepared to perform her duties she will have an abundance of milk and the child can be nourished at the font designed by nature for its sustenance and it will not need any of the legion of nostrum foods with which the market is flooded. Its thirst should be allayed by pure cold water which will often control its cries better than soothing syrup, paregoric, or other narcotics. In this connection I desire to protest against

the administration of stimulants and narcotic poisons to young children. How often, almost as soon as an infant was born, have we heard some officious neighbor or grandmother advise that a dose of brandy, whiskey, or other liquid poison be given in order to quiet it. This is a most dangerous and reprehensible thing to do, and I believe often lays the foundation of a life of intemperance. It is a crime against the child because it may fasten upon him an insatiable appetite, deprive him of his freedom and manhood, and make him an abject slave as long as he lives. Young children should be zealously guarded against the use of stimulants and narcotics and the use of the latter could be greatly restricted by physicians with decided advantage. During childhood and youth, children should have an abundance of plain, unstimulating food at regular intervals, because the quality of the food and regularity in the time of eating are very important in securing healthy growth and development. Young children should have plenty of sleep. The young infant sleeps nearly all the time and until the age of ten or twelve years children should have at least eight or ten hours sleep out of the twenty-four. To secure this will, of course, necessitate the giving up of evening parties and other dissipations which not only rob the children of their sleep but by the use of improper food and the attendant excitement lay the foundation of digestive disorders and nervous derangements. While the solid and liquid food are of great importance to the health and development of the child, the gaseous food or air of which it takes into its lungs about one pint at each inspiration, exerts a still greater influence. Man can live on one or two meals a day and enjoy good, nay even robust health, he can be deprived of water and resist the ravages of thirst for a considerable length of time, but let the supply of air be cut off and he dies of carbonic acid poisoning in a very few minutes. This fact should emphasize the importance of proper sanitary and hygienic surroundings, and plenty of exercise in the open air. The house should be situated in the most healthful place that can be obtained and as far as possible from mephitic exhalations; the soil should be well drained and ample provision made for thorough ventilation and an abundance of sunshine. Draw aside the shutters, open the windows, throw

back the coverings on the beds and permit a free circulation of life-giving oxygen through the living- and sleeping-rooms. This may tone down the brilliant colors of the carpets, but it will destroy foul death-dealing exhalations, remove musty odors, vitalize the air, put roses of health in the pallid cheeks of the children and give a buoyancy and zest to life which can never be experienced while living in foul air.

It is a fact, universally admitted, that the too free use and abuse of alcoholic liquors and the various narcotic poisons which are becoming so widely used, are responsible for a large part of the crime, disease, and misery of the world. If fathers and mothers desire that their children shall escape the evils of these insidious and malign agents, they must abstain from their use themselves, banish them from the home, and point out to the children their physiologic effects and the evils arising from their use. They should ever have in mind Pope's graphic and forceful lines :

"Vice is a monster of so frightful mien,  
As to be hated needs but to be seen ;  
But seen too oft familiar with her face,  
We first endure, then pity, then embrace."

The boy and girl on the threshold of manhood and womanhood should have held before their mental vision a vivid picture of the dangers—the misery and degradation—that attend an unbridled indulgence of the passions. If such subjects were calmly and seriously presented, in their true light to our boys and girls (I do not mean young children), and the physical dangers and moral turpitude of such indulgence clearly shown, instead of treating them in the prevailing spirit of levity and toleration, I believe many would be saved from lives of shame, sorrow, and useless regrets. If the young man or boy was told that gonorrhea instead of being a simple affair "no worse than an ordinary bad cold," is a disease that may follow him through life and sound the death knell of a loving wife, I have enough faith in the honor and character of our young men to believe that many of them would control their lustful passions and while they might be designated "*mewling milksops*," by such men as the writer in the *Cosmopolitan* magazine, they would be mighty bulwarks of

defense for the purity and safety of the home and a wonderful stimulus to a higher and nobler life.

They might not have time to acquire all the Oscar Wilde accomplishments of a profligate, dissolute, and decaying aristocracy which a certain class of people, infected with flunkeyism, in our own country, tries to imitate, but they would transmit the sturdy virtues of our forefathers who made the nation great.

Time will not permit me to enter into any elaborate exposition or criticism of our present school system. Suffice it to say in conclusion that the child's phylogenetic development should be well understood and teachers should have a clear and definite knowledge of the powers, capacities, and development of the brain and mind. When the importance of such knowledge is more fully appreciated and insisted upon, there will be less crowding of young children, less time given to abstruse subjects, such as arithmetic, which they cannot understand and which not only injure their health and prevent their proper growth and development, but crowd out more important subjects.

There will be less cramming and preparing for examinations and more earnest efforts to penetrate the secrets and understand the laws of nature. This will lead to a higher regard for truth and beget a thorough detestation of shams which are so prevalent at the present time.

Those who desire a fuller treatment of this subject, I would refer to a collective investigation which I made on "The Influence of Our School System On the Health and Development of the Child," which was read before the American Medical Association in 1897, and published in the journal, vol. xxix, pages 1247, 1305; also to a paper on "Symmetrical Development" or "Does Our School System Develop the Highest Powers of the Pupil?" which will be read at the coming meeting of the American Medical Association in the Section of Diseases of Children.

## V.

### SCHOOL HYGIENE AND MEDICAL INSPECTION OF SCHOOLS.<sup>1</sup>

By W. M. D'AUBIGNÉ CARHART, M.D., Assistant Surgeon, Manhattan Eye and Ear Hospital; Instructor in Diseases of the Eye and Ear in the New York Post-graduate Medical School; Ophthalmic and Aural Surgeon Peekskill Hospital.

The life of a child at school should be harmonious with, and supplementary to the life at home. Its growth in bodily vigor, in strength of character, and in intellectual attainments should be as continuous at school as at home. Home and school are interdependent. Health and character are as important as the acquisition of knowledge both in school and home. The preservation of the health of the child during the immature period of life is absolutely essential to its normal development in body and mind, while the foundations for character, upon which happiness and success in life so largely depend, are made or marred in the years during which the child is attaining puberty. How important, then, is it that people should realize the necessity for the enforcement of school hygiene! Much has been done already to preserve the health and improve the environment of the child while at school, but more remains to be done in neglected country and suburban districts as well as in large cities. The medical profession can accomplish a great work in building up public sentiment which shall demand that our children sustain no damage to their health or check to their growth in character and knowledge during the plastic years of childhood, so large a portion of the time of which is spent in kindergarten, primary, and grammar school. It is for this purpose that the present paper is addressed to the Symposium on the Medical Aspect of the Home, which has been made the program of the twenty-fifth annual meeting of the American Academy of Medicine.

School hygiene has been officially recognized by Boards of Health and Education only within the past few years. Probably the first trial of medical inspection of schools in this country was made in Boston in 1894, during an outbreak of diphtheria in a

<sup>1</sup> Read before the American Academy of Medicine at its twenty-fifth annual meeting, June 2, 1900.

primary school, as reported by Dr. Wm. L. Robins in the *Medical Review of Reviews*, for February, 1900. Of fourteen cases, seven were discovered in unsuspected children. By daily laryngologic examination of all the children and thorough disinfection of the infected rooms not a single case developed beyond those known to have been infected at the time the epidemic was discovered. Further preliminary work showed that 1,156 of the children in the Boston public schools out of 8,965 examined were not fit to remain in the schools, of whom 267 were suffering from contagious and infectious diseases. Daily medical inspection of the Boston public schools was soon afterwards instituted, and is now in force. The Twenty-Fourth Annual Report of the Health Board of Boston, declared that the work has disarmed all opposition, and has fully met the expectations of the Board of Health.

New York began similar inspection in 1896, and Chicago followed in 1898 with inspection of the schools on notification by physicians of contagious cases in attendance. This imperfect system is to be replaced this year in Chicago by daily medical inspection on the Boston plan, mainly through the efforts of Dr. Christopher and Dr. Allport, the latter of whom is well-known for his excellent work in establishing medical school inspection in Minneapolis previous to his removal to Chicago. Milwaukee has recently instituted an examination of school children with particular reference to the condition of the sight and hearing, which will be under the charge of Dr. H. V. Würdemann. Philadelphia is reported to be energetically taking hold of school hygiene, and will start this Fall thorough daily inspection of all her public schools.

These cities have been mentioned, although the list might be extended, to show what has already been accomplished and the interest which has been aroused in school hygiene. School hygiene in the broad view of the question is not merely avoidance of contagion by removal of infected scholars, nor is it mainly the selection of children with defective sight or hearing. Both these objects of school inspection, are well worthy of care and attention; and much good is accomplished by the medical inspectors who prevent epidemics of contagious diseases among the children, and who insist upon the correction of defects of sight or

hearing, which otherwise are impediments to the proper performance of school duties. School hygiene may, however, be classified as follows :

1. Hygiene relating to the personality of the child.
2. Hygiene in relation to the acquisition of knowledge.
3. Hygiene in reference to school environment.

1. The personal habits of a child have much to do with its health and comfort while at school. Cleanliness of body and clothing must be insisted upon for the child's own sake as well as for the welfare of others. Dirt is a great carrier of infection, while cleanliness will prevent much disease. In most school statistics skin and scalp diseases are found to outnumber all other forms of disease, and contagious eye diseases come next in frequency. Diphtheria and the exanthemata are often discovered in their periods of invasion. All such children must, of course, be excluded, and kept away until the danger of infection is past. It is only in this way that school epidemics can be avoided. Many public school children have vicious habits, which must be discovered and corrected. Here the medical inspector will depend largely upon the ability and common sense of the teacher, who should take up and carry on the duties of the parents by being watchful for defects of character. In many instances there is a physical basis for vice, and the advice of the physician may do more to correct such habits than much punishment. The normal child is always healthy in body and sound in character.

2. All children are not alike in mental power, and should not be taught as if they were. Backward and dull children need particular care. An inattentive child is often defective in the special senses, possibly slightly deaf, or may be handicapped by high refractive error and unable to apply attention for any length of time to close work. When a child, bright and active on the playground, is restless, inattentive, and careless in the school-room, we may be sure there is a reason for such want of application. Such children usually have imperfect eyes, and cannot concentrate their vision on their books, beyond a very short time, in consequence of the strain upon the ciliary muscle in the effort to maintain visual acuity. They are apt to be called



stupid and lazy when they fall behind in their studies, and because they are bright and quick about every thing except their lessons they may be considered mischievous and bad. Often the condition of the eyes is not suspected by either teacher or parent, since not all such children complain of supraorbital headache. Many of them merely feel tired and listless when forced to apply themselves to close work, but have no special sensations referable to the eyes. Children are markedly tolerant of refractive error. During some school examinations undertaken in 1896<sup>1</sup> I found many children struggling along without correction, when the Javal ophthalmometer showed several diopters of astigmatism ; and also not a few who were wearing lenses for near-sightedness when they were really not myopic at all—a condition of affairs which no adult could endure for a day. But tolerance is not immunity. Every such case presented a striking picture to the ophthalmoscope ; a retina covered with dilated blood vessels and congested over its entire area ; an optic disk infiltrated and swollen so that its outline is indistinct and its color grayish ; and surrounding the disk a conus broad and deep, through which the sclerotic tissue could be seen to share in the general congestive infiltration. Externally many children showed congestion of the palpebral and bulbar conjunctiva, with blepharitis marginalis, and subjectively photophobia and asthenopia were not uncommon.

The eyes of children are normally hypermetropic, and therefore not adapted to prolonged strain. The soft and elastic tissues of the immature eye of childhood yield to the continual strain of accommodation necessitated by school work. As knowledge has deepened and culture has expanded, we have required more of our children, and so the schools, public and private, have put much greater burdens upon the rising generation than did the district schools of by-gone days. Dictation exercises play now a large part in the method of instruction, much to the detriment of weak eyes. There is a real danger in the present tendency to crowd the greatest acquisition of knowledge into the year of childhood and early adolescence. Overpressure has been called the bane of modern education. It may be doubted whether the eyes of children of the present generation are in-

<sup>1</sup> *New York Medical Journal*, April 17, and June 12, 1897 ; *Medical Record*, October 23, 1897.

trinsically any weaker or more diseased, as a rule, than the eyes of their forefathers were, but it is evident that the demands of school life of to-day have necessitated a great increase in the aid given by glasses.

The eyes of the entire human race seem to be passing through a period of adaptation to meet the new conditions of modern civilization. Man in the state of savagery is far-sighted, as are most, if not all, animals. A very small amount of near-sightedness would severely handicap a savage in the struggle for existence, and any tendency to myopia in prehistoric man was undoubtedly ruthlessly cut short by the sure survival of the fittest. Infants are now born hypermetropic, an atavistic proof of their origin. Civilization has totally changed the environment of man. The horizon of the savage was the boundless prairie or the lofty hilltops. His civilized brother finds his vision and his accommodation taxed continually by book and newspapers. Asthenopia seems to be a necessity with modern methods of culture, but it is in the schoolroom that the greatest damage is done to the structures of the eye. Adult eyes bear with apparent impunity a surprising amount of overwork; but any considerable refractive error in children, or any local or constitutional disease or dyscrasia at once inserts an element of danger into the close application of study necessary to keep up in the classes of our schools and academies. The present methods of instruction should be radically changed. Too much close work is required in school, and there is entirely too much learning of lessons by dictation writing. Moderate use of the eyes at school and at home should be insisted upon for all children with any asthenopic symptoms. Sufficient illumination is of course a necessity for all. Careful correction of refractive error must be urged upon the parents of all children with any tendency of myopia or astigmatism, and children with weak eyes should have consideration shown them in lessening the hours of study.

The stress of modern education has enormously taxed the brains of children by the multiplicity of studies. Children cannot assimilate the ideas of widely differing departments of knowledge at one and the same time. The effort to do so deranges, in many instances, the entire nervous system of the child. The so-

called nervous child is not only not normal, but may be a victim of the education methods of the present day. The examination system is often a horror to such a child, as the writer knows from his own experience. The studies required of a growing child should never be allowed to disturb its health or to interfere with proper rest and exercise. The modern city child seems to be unable to endure the burdens of civilized life as easily as did the children of the past, who were brought up in the country and spent the greater part of their time in the fresh open air. Whether our forefathers were more hardy and robust as children than the progeny of the present generation may be an open question, but certainly the conditions of civilized life have so completely changed that at the present day mental and physical education possess equal importance for the growing child. The mind of the child of to-day is too often developed at the expense of its vitality and health.

3. Hygiene in reference to school environment is such a large subject that it can be barely touched upon in the present paper. It is also, in the main, a question of sanitary science which concerns specialists in that department rather than the medical profession, but it is of vital interest to us as involving the health of our children. School buildings should be healthy in location, and be furnished with adequate playgrounds. The buildings themselves should, of course, be well built, with dry cellars, and lavatories made safe by modern plumbing. Good ventilation is a necessity in all the rooms, and no overcrowding of space should be allowed. The desks and seats should be adjustable to the size of the children. The situation of the windows and the color of the painting on the walls and ceiling should be such that sufficient light of the proper shade is available for each and every child.

In conclusion, the writer wishes to emphasize his belief that education in schools, private or public, should never be allowed to interfere with the health of a child or the development of its character. To this end the present methods of education must be altered in a great degree. The undue stress and strain put upon the growing child by multiplicity of subjects and excessive length of hours of study should be at once removed. Young

children cannot endure without damage to their vitality either the confinement within the walls of a schoolroom or the application of their minds to books beyond two or three hours at a stretch. Fresh air and exercise, with relaxation of their minds, are absolute necessities if we are to keep our children in a normal state of health during the years which they are obtaining their growth and gaining strength for the duties of the future. The medical profession through medical inspection of schools has the hygiene of our children in its charge. It rests with them whether the education of our children shall be an unmixed blessing, or whether the child shall graduate from high school and academy with brain stuffed with knowledge, often found of doubtful utility in after life, but with nervous system shattered, and health deranged, so as to be practically unfit to take its rightful place in the world.

## VI.

### DEFECTIVES AND DELINQUENTS INSIDE AND OUTSIDE THE FAMILY CIRCLE.<sup>1</sup>

BY JAMES WILSON WALK, A.M., M.D., Philadelphia, Pa.

Defectives and delinquents constitute two of the three groups into which is divided the dependent section of the population, the remaining group being the destitutes. From the point of view of *asthenontology*<sup>2</sup> the group of defectives includes "those members of the community who, by inherited or acquired defects, either physical or mental, are segregated in well-defined classes, whose common characteristic is marked imperfection." The group of delinquents includes "those who violate the laws, or disregard well-established social usages."

In considering the influence of defectives upon normal members of the family circle, the conclusions we reach must be understood as only approximations to the truth. To the generalizations arrived at there are, in nearly all cases, numerous exceptions. It is by rhetorical insistence upon these exceptions that sentimental writers and speakers have greatly confused the entire subject. Here, as in other departments of sociologic study, we must *per force* be, at present, content with partial truths, and it is as partial truths only that I offer the statements which follow.

The choice between domestic and aggregate treatment of defectives is almost entirely a question of the last hundred years. Up to the close of the eighteenth century, these unfortunates were mingled with the mass of the population. The blind, the deaf-mutes, the feeble-minded, the epileptics and inebriates were scattered everywhere and the same was true even of the majority of the insane. Some maniacs, who were esteemed dangerous,

<sup>1</sup> Read before the American Academy of Medicine, Atlantic City, June 2, 1900.

<sup>2</sup> *Asthenontology* is that branch of sociology which is concerned with the weak, the unfit, or incompetent members of society. The common characteristic of these members is abnormality and, in a broad view, this abnormality may be in either the constitution or the environment of the individual. As the abnormality, whatever it is, commonly prevents the sufferer occupying the normal place of a self-supporting member of the community, all who are thus affected—the *asthenontes*—are commonly included in the dependent section of the population.

were immured in madhouses; but harmless lunatics continued a part of the families to which they belonged. In almost every village lived well-known individuals illustrating the familiar defective types and the literature of the times abounds in allusions to the blind man, led about by a small dog or a little boy, the feeble-minded child who was the butt and victim upon the playground, and the half-witted woman—wild Margery, or crazy Susan. Fifty years ago public opinion, especially in Great Britain and the United States, was strongly in favor of segregating the defectives and gathering them into institutions, where they would receive appropriate medical, educational, and disciplinary treatment. At that time it was believed that the majority of the insane could be cured by the methods used in properly appointed asylums, and under the teachings of Dorothea Dix and her disciples an enthusiastic movement spread over both England and America—a movement which led to the building of scores of stately lunatic asylums. The past decade has witnessed a reaction, due partly to the keen disappointment which has come with the admission that only a small percentage of the insane are curable and partly to that rebound in public opinion, which seems inevitable, when any great movement has spent its early force, and which has been compared to the strokes of the pendulum, which ever passes from one extreme to its opposite. Thus it has come about that in recent years there have been many who have advocated family care for all classes of defectives, even the insane.

As the entire question is thus reopened, it is desirable to consider how family life influences defectives, and how they, in turn, affect the normal individuals, by whom they are surrounded in a household. The presence of a defective member in the family circle (as ordinarily constituted) tends to lower the industrial productiveness of the family. This theorem scarcely requires demonstration. It is evident that a person who is blind, epileptic, feeble-minded, or insane, requires care from other members of the family, is often a source of anxiety and danger, is a constant hindrance in the arrangement of both work and pleasure, and an obstacle to the exercise of hospitality and the commingling of the family with neighbors. The unfortunate defective,

like the skeleton in the closet, is a *kill-joy* and his presence, by restricting and saddening the family life, lessens the energy of all the members, particularly the young, and reduces the family to a lower plane of industrial efficiency and hence a lower plane of comfort and intelligence. In addition to these things, there is the direct injury which an abnormal individual may, and often does, inflict upon those whose nervous organization is peculiarly susceptible. Some years ago I saw a case of imitative epilepsy in a boy six years old, who, up to the age of five, had been particularly robust and free from any symptom of disease whatever. He had no hereditary tendency of a neurotic kind and his illness was explicable only as the result of imitation. A year previously his parents had taken from a children's asylum a girl of eight years, whom they intended to rear among their own little ones. This girl was free from deformity and had an attractive face and winning manners; but she suffered from the *petit mal*, in a form tending to catalepsy. The lad of five became very fond of her and they were constant companions. One day his mother observed him become suddenly rigid, with upturned eyeballs and immovable features. Much alarmed, she shook him vigorously and after a few minutes, when he had returned to a normal condition, he explained to her "that he had done just what Katie does and that he had been doing it for weeks and weeks and weeks." Katie was removed; but many months afterward I was informed that the boy, though less frequently attacked than formerly, was still subject to seizures of exactly the type at first observed. Over against these deleterious effects of the presence of defective persons in the family circle may be set the advantages to be derived from the cultivation of sympathy and patience, called forth by the defective's unfortunate condition. There is weight in this argument and where a family is wholly composed of adults, the presence in their midst of a blind, or even feeble-minded, person, may so develop altruistic sentiments and so stimulate altruistic conduct, that the result may be good; but in families comprising, as nine-tenths do, those who are immature, the harm likely to follow such association is very great.

The advocates of household care for defectives base their arguments upon the advantages the unfortunates will enjoy from

personal contact with sympathetic men and women, who feel in them an interest deeper and more personal than can be expected from the nurse or attendant in a large institution. They have put their theories into practice in the very field, where there seems to be the greatest difficulty in applying them—among the insane—and both in Scotland and Belgium, many patients have been removed from asylums and entrusted to the care of families, the payment for their maintenance being the same or little more than the usual asylum charge. Much is claimed for this system and, while there are not yet sufficient data to justify positive conclusions and we must regard the question as still *sub judice*, yet there are certain very obvious objections to the Scotch-Belgian plan, objections to which I have heard no answer, at least so far as regards its introduction into this country. In brief, it seems improbable that here the kind, sympathetic, forbearing people, to whom it is desired to entrust the insane, could be found, in anything like adequate numbers, when the inducement for them to assume so serious a charge is nothing more than the small sum, for which patients are maintained in our large state hospitals. I fear the unfortunate lunatics would fall into the hands of the kind of people who used to bid for the support of the township poor, when the iniquitous system of letting them out by auction was in vogue. If there be danger of such a result, how are wrongs to be prevented, or corrected, if prevention has failed? How can there be any adequate inspection of the condition of hundreds of lunatics scattered in hundreds of cottages? The inspection of a public hospital, or asylum, is a comparatively simple affair and, with the right kind of inspector, the inquiry can be made efficient; but a real inspection of the conditions of a hundred families is, with the means usually at command, quite impossible.

In our own country the great majority of defective persons spend a part of their lives in public institutions, which collect those of each class separately. For the blind, the deaf-mutes, and the more hopeful members of the class of the feeble-minded, this aggregate life continues only during the educational period, terminating usually before the age of twenty. Institutions of this kind are not properly designated as *charitable*, much less as



*pauper-caring*. There are a part of the public-school system of the state, and the differences between them and the ordinary type of the public school are due to the peculiar conditions of the pupils, which unfit them for educational training, such as is suitable for other children. The blind or mute child cannot be taught in the ordinary district school and hence there is provided for him a special school, with special apparatus and expert teachers. Furthermore, as the small number of the blind (for instance) makes it possible to instruct all of them, who are in the state, in two or three schools, it follows that there are only a few schools of this kind. They are necessarily far distant from the homes of the majority of the pupils and hence they must be boarding-, not day-, schools. When fully equipped these institutions bear a resemblance to those which have been founded to provide for the destitute, either charitably, or from the funds raised by taxation; but they are in their origin and motive *educational*; no sort of stigma attaches to the pupils, who attend them and their true place as a part of the state's educational system should be kept clearly in mind.

The advantages of this congregate plan of educating defective children are so great that it may be regarded as a permanent thing in all civilized countries. The only serious objection offered to it is the danger that children reared in this way may be deficient in self-reliance, may lack the power of initiating for themselves, and the ability to work alone. In recent years much stress has been laid upon the evil of "institutionizing" the young, particularly by the numerous children's aid societies, which have been organized in our cities and which have very urgently advocated the family method of care for all groups of dependents. Admitting that life in a large school or asylum is lacking in those opportunities to cultivate self-reliance and to practise self-sacrifice, which a child has in association with his parents, brothers, and sisters, it must be borne in mind that there are counterbalancing advantages. Obedience, order, and punctuality are far better taught in a good institution than in the average family. The superintendents and teachers in such establishments are better trainers of the young than the average parent. Beside this, the objections to aggregate life are less cogent in the case

of defectives than in that of normal children. The important lesson which the defective must learn, is to live and work in association with others. This is taught in the congregate life and the lack of independent initiative is of less consequence with him than with the normal child, because his misfortune, in any event, will preclude his accomplishing much alone. Judged by results, the training schools for defectives have abundantly justified their existence. To them is due the most creditable fact that the adult deaf-mutes are very rarely public charges. Indeed this class has a high standard of industrial efficiency, and few of its members are immoral. Even among the blind, affected as they are with one of the most dreadful of defects, the schools have accomplished a great deal. Once a majority of the blind were beggars; now by persistent training in the use of the raised letters, the metal slate, band instruments, and the practice of appropriate handicrafts, the larger part are self-supporting and the ratio of the independent is steadily rising. With the feeble-minded and epileptics much less has been accomplished. Their segregation in institutions is of more recent date, but the experience already accumulated seems to teach that whatever hope there is in these unpromising fields lies in the direction of congregate instruction.

The limitation of my time forbids any extended discussion of the environment of delinquents and the subject is mentioned merely to call attention to the failure of a recent experiment, which should never have been made; but whose disastrous results may serve as a warning for the future. Through all the centuries, since prisons took the place of the personal custody of offenders, which was the practice of our Anglo-Saxon forefathers, the law has generally compelled the collecting of the criminals, the vicious and the insubordinates within custodial walls. It has been the best that could be done, the only reasonable solution of a hard problem. It was required by the legal theory of retribution and, what is more important, was demanded for the protection of society. That its results have been only partially satisfactory every penologist knows; but in dealing with crime, wise men do not expect to attain any brilliant success.

Now it happened a few years ago that a number of ladies—

the managers of a children's aid society—became so enamoured of their theory that family life, "mothering," was the panacea for all ills which affect the young, that they determined to extend the benefits of their organization beyond the destitute and defective children, with whom they were primarily concerned, to the class of delinquents designated as *insubordinates*—the sort of boys and girls, who make up the population of reform schools.

These ladies had social influence and they were persistent. Hence it came about that, although they did not persuade the trustees of the reform school in their city to turn over to them any inmates of the institution, they did convince some of the judges, before whom youthful offenders were tried, that these insubordinates could be safely entrusted to family care under the supervision of the society, and hence this course was taken in a number of cases, instead of judicial commitment to a reformatory institution. The bad boys, some of them thorough-going scamps grown almost to manhood, left the court-room in charge of sympathetic ladies, who had the best intentions, but who were without experience in dealing with law-breakers. These ladies impressed upon their charges how they yearned over them, how they had faith in the boys' good resolutions and would procure for them not punishment, but a home life full of sympathy and love. This well-meant kindness unfortunately fostered in some of the boys that notion, so common to the criminal of every grade, that he is a misused victim of hard and unjust laws—the very state of mind most unfavorable to reformation. The boys were then placed in rural families, the cost of their maintenance coming from the society's treasury in the form of weekly payments.

A good deal was publicly said in favor of this method. In some pulpits it was praised as a great benevolent achievement and some shallow editors added their voices to the chorus of congratulation; but I am glad to say that not one man, whose studies of penology gave him the right to speak with authority, expressed approval and one or two, at least, pointed out the dangers involved in the scheme and predicted its failure.

You will not find the results of this experiment described in the reports of the society which made it. People are not apt to

publish their failures. The outcome was bad. Some of the boys speedily ran away from the homes in which they had been placed; others made themselves so obnoxious that the families which had received them, hastened to send them back to the city; others soon committed offenses, which led to their arrest and commitment. The saddest consequence of all was that these delinquents spread moral contagion in the households where they were sheltered and pure and innocent boys and girls, in simple country homes, were taught their first lessons in vice by these depraved guests sent among them by a well-meaning, but inexperienced and unwise sentimentalism. The experiment failed; it is now almost forgotten by the busy world, but, alas! it has left sinister scars upon many lives.

The treatment of delinquents, adult or juvenile, should be humane and sympathetic; but it must be firm and consistent and it should be in the hands of those, who have knowledge of the subject. This is no field for amateur experiment. Scarcely anything is a greater obstacle to reformatory treatment than unthinking gush and sentimental coddling. The best we can do for the delinquent is to give him such discipline, as shall restore him to a normal condition and our efforts toward this end must always be so wisely considered and judiciously carried out, that in lifting him we do not depress some one else, that we do not try to save the guilty at the risk of corrupting the innocent.

## VII.

### IS THE HABITUAL USE OF ALCOHOLIC INTOXICANTS IN THE HOME CONSISTENT WITH ITS THOROUGH SANITATION?<sup>1</sup>

BY J. W. GROSVENOR, M.D., Buffalo, N. Y.

The primary object of sanitation is the removal of the causes of disease and accident; it includes the abolition of all conditions that are antagonistic to the normal health of the human organism.

The habitual use of alcoholics by the inmates of the home induces a careless disposition which neglects and violates the laws of sanitation. In their early drinking career they lose a part of their moral force,—a portion of their wholesome pride and self-respect; as time moves on and the drink obtains a larger control over the moral nature they are led into a habit of personal uncleanness; physiologic laws relating to food, exercise, work, sleep, and recreation are violated; an irregular life undermines the physical integrity; a disregard of sanitary conditions plants in the organism the seeds of disease which bear their legitimate fruits of pain, organic disintegration, and death. These statements may not be true in every case of the home-drinking of alcoholic intoxicants; the head of the home of affluence may drink his glass of wine or mug of beer as a part of his meals and still the home and all its surroundings with the exception of its head may be in a first-class sanitary condition; the home-keeper, who is generally the wife and mother, may establish her household affairs upon the most rigid sanitary basis. Not infrequently, however, the home-keeper becomes the home-destroyer.

Oftentimes the sexual passion through the exciting influence of strong drink is given unbridled indulgence; the husband and father seeks and follows the strange woman to her destructive den whence he returns to his home with a poison which finds expression in the blasted health of wife and mother, in disease inherited by children and coming generations. Not infrequently the sons, as young men, follow the evil example of their father

<sup>1</sup> Read before the American Academy of Medicine, Atlantic City, June 2, 1900.

and end their vicious career by a wrecked life and early death. Thus through the power of alcoholic intoxicants over the moral nature do unsanitary factors enter the home and impose heavy burdens upon its innocent occupants.

The habitual use of alcoholics produces degeneration of the brain. This has been conclusively proved by autopsic observation and microscopic examination. Nissl and Dehio have demonstrated that under acute alcoholism degenerative changes occur in the ganglion cells of the cerebellum. Kellogg has determined that the nerve filaments are shrunken and destroyed by alcoholism. Other competent observers have noted the same or similar changes in the human brain through alcoholic poisoning.

Jackimoff experimented with alcohol upon dogs and found the cells of gray matter of the brain in a state of disintegration. Berkley observed in the brains of alcoholized rabbits among other changes an alteration of cellular protoplasm and a shrinkage in the size of the nerve-cells.

The practical effect of these degenerations of the brain by alcohol has been shown by Kraepelin, Furer, August Smith, and other distinguished scientists. Kraepelin's experiments were conducted by administering to men comparatively small quantities of alcohol, one and one-fourth to two and one-half ounces daily, in divided doses. He noted the effect upon the mental faculties in respect to memory and addition. The uniform result was a diminution in the power of these faculties. Smith enlarged these observations and noted the weakening effect of alcohol upon the judgment, the power of drawing conclusions and of associating ideas.

Looking at these effects of alcohol on the brain and mental processes it is not difficult to conclude what is the intellectual status of the man or woman who has become habituated to the use of alcoholics. The attitude of the inebriated father or mother towards the sanitation of the home is that of indifference or antagonism. The blunted perceptions do not recognize a poisoned atmosphere, the unhygienic food, the dirt, the contaminated water, the insufficient sewerage, the overcrowded rooms. The perverted reason sees no causal relation between these conditions and disease, suffering, and death.

The alcoholic inebriate has comparatively little knowledge of sanitary laws and measures for the relief of his unsanitary dwelling. Ignorance plays a prominent part in his neglect to avert the causes of disease. He makes scarcely any effort to inform himself concerning the factors that promote health, comfort, and happiness. He permits his children to grow up in ignorance of the commonest rules of decency and self-preservation. Perhaps upon no subject does he exhibit more ignorance than upon the effect of alcohol on the human system and its relation to sanitary regulations. He believes that alcoholic beverages give strength whereas they produce weakness, that they promote health whereas they are one of the most prolific sources of disease, that they contribute to physical endurance while the fact is that long and abundant experience has shown that the total abstainer from these beverages can endure more and greater hardships in every severe condition of life than the man who uses them, such as arctic exploration, a military career, and a sea-faring life; he believes that alcoholics contribute to longevity notwithstanding facts, directly contrary to this belief, have been established by accurate records kept during the last thirty years by life insurance companies and societies of total abstainers. He is quite certain that alcohol enhances his mental vigor and largely conduces to his ability to conduct a successful business but does not recognize the facts that at least twenty-five per cent. of insanity is the direct result of alcoholic indulgence and that he has tripped himself many times in his financial affairs on account of his alcoholic habit. In reference to the sanitation of his home he affirms that the habitual drinking of alcoholics is an excellent prophylactic against all forms of disease, especially diseases of an infectious and contagious character, that it neutralizes the poison of a contaminated atmosphere, that it antagonizes the germ-bearing exhalations of sewage, that it adds to the physical power of resisting cold and enduring heat, and that as a sanitary agent it has no equal. He has no conception of the deceptive character of alcohol. Under the influence of its narcotizing quality he *feels* better after using it and therefore believes he *is* better.

The effects of alcoholic intoxicants upon the human physical system are too well-known to require a long and detailed de-

scription of their injurious qualities. When ingested they penetrate all the tissues. Probably no one causal factor of disease is more prolific than alcohol. It is a fact established by observation and experience that its paralyzing hand touches nearly every organ of the body. Its poisonous breath vitiates solid and fluid alike. Every vital organ has felt its power for the destruction of human life.

The unsanitary influence of alcoholic drinking upon the home is seen in the physical degeneration of its inmates. By it the body is weakened to such an extent that vital resistance is lessened and the diseases which are fostered by uncleanness prey with unusual energy upon their victims. The home of the inebriate is apt to be an unclean home. Filth is the preferred residence of disease-producing organisms. Dirt is their delight. The poisoning and paralyzing influences of alcohol lead to the conclusion that the alcoholized organism presents a lessened resistance to the attacks of micro-organisms. The detailed experiments of Abbott upon lower animals lean strongly towards the same conclusion. His experiments upon rabbits showed that the normal vital resistance to some organisms was markedly diminished. In some cases alcoholized animals died after microbic inoculation while the control animals lived. There is but little reason for doubting that the same or similar effects would occur in the human system under the same treatment and circumstances. The inebriated body in the home deluged with filth succumbs with comparative ease to microbic infection.

Heredity plays a vast and important rôle in the sanitation of the home. No fact in the biologic history of the race has been more clearly and firmly established than that alcoholized parents transmit to their children mental and physical characteristics whose outcome is a disordered intellect, idiocy, insanity, immorality, crime, alcoholism, epilepsy, and physical degeneracy. To be assured of the truth of this statement it is only necessary to visit our public institutions for the feeble-minded, the insane, the epileptic, our almshouses, our jails and penitentiaries. There is strong evidence in favor of the conclusion that there is transmitted a morbid appetite for alcoholic intoxicants unaccompanied by any marked degeneracy of mind or body. The historic and



statistical evidence concerning alcoholic families are sufficiently elaborate to substantiate the most positive opinion that alcoholic degeneracy is transmitted from parents to children. In a report upon this subject Legrain states that 215 alcoholic families had 819 descendants. "Of this number 16 were born dead, 37 were born prematurely, there were 121 premature deaths, generally attended by convulsions, 55 cases of tuberculosis, 38 cases of marked physical debility, and 145 cases of mental derangement." Of the remainder "a large number were epileptics, hysterics, idiots, etc."

Demme's comparison of ten families of drunkards with ten temperate families shows that only 17.5 per cent. of the descendants of the former "had ordinary good health in childhood" while 81.5 per cent. of the descendants of the temperate families "were mentally and physically sound in childhood and youth." Historic records of this description might be multiplied almost indefinitely.

Similar observations have been made upon lower animals by Prof. C. F. Hodge, of Clark University. He experimented upon two pairs of dogs. All the dogs were healthy and of the same age, were given the same kind of food and treated in the same way in every respect except that one pair received daily a moderate quantity of alcohol, an amount insufficient "to noticeably intoxicate" while to the other pair no alcohol was furnished. The experiment was continued till nine litters of puppies had been born to each pair. "Only 20 per cent. of the progeny of the alcoholized parents were healthy while 93.8 per cent. of the progeny of the non-alcoholic parents were healthy in all respects."

No sadder picture has ever been painted in the whole range of art than might be put upon canvas as the representation of the outcome of heredity in the family of inebriated parents. See shuffling along the floor the boy whose weak legs can scarcely sustain him in an erect posture; note the epileptic girl falling in convulsions; observe on the face of another child the expression of mental imbecility; mark still another in the throes of hysteria. Surely alcoholic heredity, as it finds expression in the home, is inimical to its sanitation.

Poverty is responsible, in large measure, for the unsanitary

condition of the home. In the home of poverty the bread and butter question and the clothing question are uppermost. The money spent in the home of luxury for sanitary purposes must be used in the poor man's home for food and clothes. The body must have sustenance for maintenance of its tissues and covering for its protection against the inclemencies of climate. The poverty-stricken man has no means for the purchase of airy and spacious apartments, for the removal of unsanitary dirt from the home, for suitable clothing against the cold of winter and heat of summer. The wolf must be kept from the door and the money expended for this purpose is not available for the sanitary improvement of his unsanitary environment.

Discouragement and despondency as the result of poverty lead to the neglect of sanitary regulations and their violation. Ambition is crushed and under the combined influence of inebriety and poverty the father prefers for himself and his family, disease and filth rather than the exertion which brings health and cleanliness.

The questions whether alcoholic intemperance is an influential factor in the production of poverty or whether poverty leads to intemperance have been discussed many years with zeal and pertinacity and are still mooted questions. In an article entitled "Some Economic Aspects of the Liquor Problem," published in the *Atlantic Monthly*, for May, 1899, Henry W. Farnum makes this statement concerning the cause of poverty in the United States: "Of the almshouse population, not 50 per cent. but at most 37 per cent. have come to their poverty through the use of liquor directly or indirectly." These are very conservative figures and far below the estimates generally presented by students of this question. Even 37 per cent. is appalling and emphasizes the importance of the relation which exists between the inebriated condition of the home and its sanitation.

Two remedies of superior value for the relief of the unsanitary condition of the home due to alcoholic drinking have been suggested to the mind of the writer—education and law.

Laws compelling instruction in our public schools upon the effects of narcotics and alcoholics have been placed upon the statutes of all our states except Georgia and Utah. This instruc-

tion, if clearly, thoroughly, and persistently imparted will give to our children an understanding of the danger of acquiring the alcoholic habit and through this knowledge a salutary influence will be exerted on the sanitation of the home. It is to be regretted that some of the educators of the country have opposed this kind of instruction in our public schools. This opposition together with the opposing influence of parents has, in some parts of the country, rendered a strict enforcement of the laws upon this subject quite difficult.

At a late convention of teachers and superintendents in Chicago a discussion of this subject showed considerable antagonism to this instruction from some prominent educators. Professor Atwater, who has of late come into prominent notice through his advocacy of the food value of alcohol, read before the convention a paper in which he severely criticized the text-books of physiology used in our public schools because they contain errors concerning the effects of alcohol upon the human system. Many of these books have been examined by physicians and scientists and have been pronounced free from scientific error. In an exhaustive article published in the *Journal of the American Medical Association* of March 31, 1900, Professors Frank Woodbury and Seneca Egbert reviewed Professor Atwater's experiments on the food value of alcohol and presented the following conclusions: "Therefore we are forced to the conclusion that Professor Atwater has produced practically no evidence whatever to support the claim that alcohol is a wholesome or useful food, nor to change the generally accepted view that its physiologic action on the human body is destructive and not constructive." Surely this is the trend of all the teaching of the physiologic text-books in our public schools concerning effects of alcohol on the human organism.

Doubtless there is room for a difference of opinion on several questions connected with the nature and action of alcoholic beverages. Probably all the text-books of our public schools contain statements about which there is a difference of opinion. We do not for that reason advocate that all text-books shall be banished from the public schoolroom. If statements upon alcoholic effects, which are plainly in conflict with the teachings of science, are

found in our physiologic text-books they should be corrected. These errors should not be used as an excuse for entirely discarding alcoholic teaching in these institutions of learning. This teaching for a generation will surely exert upon the home a strong and abiding influence in favor of the enforcement of sanitary laws both natural and civic.

The penalty for the violation by any municipality of laws enacted for the compulsory teaching of the effects of narcotics and alcoholics on the human system should be a refusal by the state to pay the public school fund or some other penalty equally stringent. Ere long the rising generation will be the care-takers of the home and through instruction received to-day may free the home from the unsanitary contaminations of the alcoholic habit.

Not only children in the public schools but the general public should be educated upon the relation of alcoholic intemperance to the sanitation of the home. It would be appropriate for boards of health to do a part of this work. They could establish free courses of lectures to be given by chemists and physiologists upon the nature of alcohol and its effects on the human system. Such lectures could be made clear and simple and their truths made more attractive by illustration with the stereopticon.

It would be important to represent the alcoholic inebriate as an unsanitary individual and his unsanitary home as a source of crime and physical and mental ruin. Brief monographs might be written on this subject and scattered broadcast in communities by boards of health. They could state the truth in plain and forcible language, and should be scientifically correct in statement and attractive in style. This kind of work, the enlightenment of the public along all sanitary lines, is incumbent upon boards of health and one of the prime objects for which they have been created.

As a conservator of the public health the medical profession bears the burden of a heavy responsibility. The physician is the trusted and confidential adviser of the families under his care upon all subjects properly referred to the domain of preventive medicine. No person comes nearer the heart of the home than he. As he makes his daily rounds he has abundant opportunity to teach the results of alcoholic intemperance on the sanitation

of the home. He can set forth the fact that inebriated parents are unsanitary individuals who make of their unsanitary home a breeding place for morbid germs and a plague-spot for ruining the degenerated human organism.

The physician should not only by precept teach the disastrous effects of alcoholic intemperance upon home sanitation but as an example to others should also place himself and his home outside of the influence of alcoholic beverages of every description. Although the law by statute and ordinance has accomplished much for the removal of unsanitary conditions of the home it ought to do much more in the same direction.

The alcoholic saloon is a menace to the sanitation of the home ; if opposite, beside, or in the immediate vicinity of the home, it invites and encourages the patronage of the family. Our legislators should enact such laws as will make it hard for the citizen to do wrong and easy to do right.

By process of law a board of health razes to the ground an unsanitary tenement. Law forbids the sale of diseased, unsanitary meat and vegetables. The alcoholic saloon is an unsanitary institution, a prolific breeder of disease. If law forbids its existence within 200 feet of a church or schoolhouse why not compel it to remain outside of the same limit from the home? From a sanitary point of view is not the home as of much significance as the church or schoolhouse? The home is the main support of the church and school. The ruin of the former is the demolition of the latter. A law for the abolition of the alcoholic saloon is as just and equitable in view of its influence upon the sanitation of the home as any law by statute or ordinance which forbids the market man to sell tainted meat, the milkman to serve to his customers microbic milk, or the contractor to erect an unsanitary dwelling.

No social organization in this country or indeed in any country is so potent as the home for the welfare of mankind. Here is the beginning of streams of life which are either pure and wholesome or contaminated with filth and disease. As is the home, to a large extent, is the community, the state, the nation. The father-love and the mother-love permeates the heart of boy and girl, of young man and young woman and molds characters into the vile

and criminal or into the true, the beautiful, and the good. The home influence flows out into all organizations, social, religious, political, civic, and military. The home is a great civilizer of the world, a bulwark of enlightened humanity. Its destruction leads towards anarchy.

In this view of the home how absolutely necessary that it should be pure! Neglect of proper sanitation should find no place within its borders. From it should be eliminated all factors which point towards physical unsoundness, mental imbecility, and immorality. The home should be the highest type of the heavenly mansion. To this end its occupants should free themselves, and their environment from the unsanitary conditions induced by the cup which inebriates. The clink of the alcoholic glass should not be heard at the family's festive board. The atmosphere of the ideal home should not be odorized by the fumes that emanate from the distillery and the brewery.

The sanitation of the home will not be complete so long as it is dominated within by alcoholic beverages and without by the alcoholic saloon. Alcoholic intemperance as a factor in the home is productive of an unsanitary status which is dangerous and deadly.

It is the solemn duty of the American physician to assume his share of responsibility and work in regenerating the American home. This he will not accomplish if he fails to teach by voice, pen, and example that the habitual use of alcoholic intoxicants in the home is inconsistent with its thorough sanitation.

## VIII.

### THE HYGIENE OF VISION IN THE HOME.<sup>1</sup>

BY S. D. RISLEY, M.D., Philadelphia, Pa.

Much attention has been given to the hygiene of vision in our schools, while but little effort has been made to educate the public to any adequate appreciation of the great importance of applying the same principles of hygiene in the home. It is obvious that the most perfect arrangements possible in our public and private schools will not serve to ward off the deleterious influences of faulty conditions in the home.

The necessity for increased attention to the home environment of the school child will be recognized when we consider how universal the reading habit has become under the fostering influence of cheaply produced editions of the best books, and the profusion of newspapers and current journals that constantly flood the family table. The short story, and badly printed book, upon a thin and poor quality of paper, are rapidly taking the place, if indeed they have not already done so, of the old-time healthful recreation of many families in music and games. When we add to the evils of the reading-habit the increasing demands of the school for home work in the preparation of the assigned lessons for the following day, it will be seen that there is great need that the public should be apprised of the harmful influence this constant employment at near work may have over the eyes, especially of the children of the household. It should be borne in mind too that much of this work is performed at a time when the vital forces are depressed by the fatigue consequent upon the exertion and turmoil of the day. It is the custom for most persons, certainly those of studious habits, to don an evening costume, secure a lounging chair, and while resting from the general fatigue of the body to compel the equally exhausted visual organs to continue their work. Having in view this prolonged use of the eyes and the faulty conditions under which the work is too frequently performed, it is not a

<sup>1</sup> Read before the American Academy of Medicine, Atlantic City, June 2, 1900.

cause for surprise that we find the eyes suffering impairment under the influences of our environments. The conditions as represented are fraught with still greater importance when we recall the large percentage of congenitally defective eyes which statistics show to exist and the liability to disease shown by these defective eyes even under the best hygienic surroundings.

The present paper is, therefore, designed as a plea to the public for greater consideration in the use of the eyes in the family circle and for the establishment of better hygienic environments than are ordinarily obtained in the home.

The family room, variously designated as the sitting-room, or living-room, where, the ordinary vocations of the day being over, the family congregates for the long winter evening, is the physiologic bane of many households. The picture presented is a familiar one. The large center table supporting a single coal-oil lamp, or illuminated by a burning jet of gas flowing from a stand lamp, or drop light; the heads of the family surrounded by the children and other members of the household, all assembled within the radius of light, engaged with needle, newspaper, and book; the outlying parts of the room in shadow. Who does not conjure up this family picture and once more gaze upon it as among the tender recollections of childhood?

It may seem like a species of sacrilege to designate this congregating of the family in the living room as the bane of the household, nevertheless as a scientific body, however tender the memories or congenial the association, we cannot close our eyes to the baneful hygienic influences which are quite inseparable from the conditions presented.

The family sitting-room finds its origin, probably in two factors. In the first place it satisfies the social instinct. Viewed from this standpoint, it is entitled to the most earnest commendation, since, if properly directed, the social evening life of the family can be made the most efficient of all educational influences surrounding the life of the child. The living-room survives, however, not only for the cultivation and gratification of the social instincts of the family, but because of its economical features, especially in families where the income is sufficient only by careful husbanding to meet the most urgent



and daily recurring needs of the household. It costs less to warm and light one room than many and therefore outside the living-room the house is cold and dark. That this is a false economy we need not go far to prove, but it is probably useless to argue against present saving in order to avoid future expenditure. Ill health, diminished earning capacity, increased physician's bills, etc., etc., are, to present seeming uncertain contingencies, but the coal and gas bills are sure to be rendered. We must therefore content ourselves with any improvement which may be effected in the room itself, *e. g.*, in its ventilation, methods of heating, the kind and quality of illumination, the furnishings, etc., and by careful instruction regarding the proper relation between chair and table, the work in hand and the source of illumination, etc. Not only is the average living-room without adequate means of ventilation, but the air space insufficient to meet the respiratory requirements of a large family for several hours. More than this, the exhaustion of the oxygen in the atmosphere is hastened by the burning oil or gas, and is very soon poisoned both by the products of combustion and by the organic emanations from the lungs and skin.

It does not, however, fall within the scope of this article to treat at length of the general hygienic conditions of the home, but to point out the harmful influences to vision which are inseparable from the conditions as described above. It is not possible under such conditions for all the members of the family to assume proper positions in relation to the source of light and at the same time secure adequate illumination for the work in hand. The first point, therefore, which I wish to urge is the evil of insufficient illumination. In the end, true economy will be in the direction of a well-lighted room so that it will be possible to read or sew in any part of it. It will then be possible to avoid at least the close individual contact and will permit each person to arrange for a suitable relation between the work and the direction of the light. What this relation should be was admirably suggested to its young readers, a few years ago, by the *St. Nicholas Magazine*, in the following humorous manner:

" When reading, or writing, or sewing it's right  
 To sit, if you can with your back to the light.  
 And thus it is patent to every beholder,  
 The light will fall gracefully over your shoulder.

" Now here is a family, sensible, wise,  
 Who all have the greatest regard for their eyes.  
 They first say 'excuse me' which also is right,  
 And then all sit down with their backs to the light.

" But their neighbors, quite unhygienic, can't see  
 Why they do it and think they cannot agree ;  
 And always conclude they've been having a fight,  
 When they only are turning their backs to the light."

Mention has been made of the rapid vitiation of the atmosphere of the room by the products of combustion furnished by the burning oil or gas. It is obvious, therefore, that increased illumination by these means must effect this result more quickly. The deleterious consequences can, it is true, be corrected by adequate ventilation but unfortunately in most private dwellings no provision has been made for the admission of fresh air except by opening the windows or doors and this is done only at the cost of injurious drafts. These harmful conditions are avoided in great measure by electric lighting which should be adopted whenever possible. It is not always possible, however, to secure the substantial advantages afforded by this means of lighting. I am convinced after the continuous use of the electric lamp for seven years in my own house that no other method of artificial illumination yet devised compares favorably with it for either convenience, safety, or efficiency. The incandescent electric lamp affords a steady source of illumination and the eyes can be as readily protected from the glowing wire by a suitable shade as from the flame of the oil-lamp or the burning gas jet. It possesses, moreover, the additional advantages of not loading the air of the room with the products of combustion and does not consume the oxygen of the air. Then too, although the bulb becomes hot the radiation of heat is much less than from any other method of illumination. The comparative comfort and safety to the eyes I have many times demonstrated to my own satisfaction. To read or write, with a lamp or gas as the source of light, one very soon experiences a sense of heat and weariness

in the eyes and brow. To replace the light by an electric lamp is to have the sense of discomfort and fatigue disappear even while the work is continued. The discomfort so often experienced while working by artificial illumination should quite as frequently be ascribed to the heat as to the light.

When the electric light cannot be secured some device should, therefore, be adopted to conduct the heat away from the head and eyes. The ordinary shade accomplishes this in a measure by creating a draft of air between the chimney or the burner and the shade. A chimney sufficiently large to blanket the one ordinarily in use still further protects from the heat by causing a supernumerary draft between the two chimneys. Where the suggestion I have made for the liberal illumination of the family-room is followed it will be necessary, usually, to employ the lights from a chandelier or side-wall brackets, so that the source of illumination is above the head and therefore the objectionable feature of the heat from the table lamp is removed. In efficiency as a source of illumination the Welsbach gas burner is quite equal to the sixteen-candle electric lamp; that is to say when both are at their best. The efficient life of the electric incandescent burner, however, is much greater than the mantel of the Welsbach. I have both placed over my library table and elsewhere about the house, but always find myself returning to the electric lamp with additional comfort and satisfaction. Where this cannot be had the Welsbach is, however, the second choice. The white light furnished by the glowing mantel of the Welsbach, is an advantage, although objected to by some persons. Any unpleasant effects it may have finds, however, more than adequate compensation in the increased illumination it affords as compared with an ordinary Argand burner or student's lamp. The large amount of heat radiating from the coal-oil lamp, the unpleasant odor emanating from it, if not perfectly trimmed and the greater liability to accident should abolish it from the home except in localities where electricity or gas cannot be obtained.

Directly connected with the subject of illumination is that of the colors employed in the decoration of the living-room. The quantity of light is greatly modified by the color of the walls and

ceiling. The colors of the red end of the spectrum should rarely, if ever, be chosen for the decoration of the walls of the living room, since much light is lost by their employment both by day and night. The lighter, or more delicate shades of yellow, green, blue, or light gray not only insure a brighter and more cheerful room but will prove a source of economy in artificial illumination. This is forcibly demonstrated in different rooms of my own home. In one, the prevailing colors are medium shades of terra-cotta, with dark frieze and hangings and walnut bookcases. In a second room the tints used in the decoration are faint yellow with hangings in harmonious shades of color and light furnishings. In the first  $D. = 0.50$  can be read distinctly at one-third of a meter, no farther than two meters, from a single sixteen-candle incandescent electric lamp; while in the second room, with the lighter shades of color, the same type, under exactly similar conditions in all other respects than the colors used in the decorations and furnishings, can be read with equal facility at three and a half meters from the lamp.

Much might be justly said in this connection in condemnation of the habit so prevalent with housekeepers of shutting out the daylight. Even if the architect has been wise enough to provide adequate window space for the lighting of the room, the light is quite habitually excluded from most homes by closing the upper half or two-thirds of the window by shades, hanging curtains, and blinds, so that it is usually quite impossible to read without approaching the window. It is not surprising that children, bred in the somber twilight of such a home, should grow up pallid and wanting in physical vigor. To perform any task requiring accurate vision in the dim light of a room thus shaded by day or imperfectly illuminated at night requires that the work must be held too close to the face, thus causing an undue strain upon the convergence and accommodation which soon leads to congestion and fatigue of the eyes. The preservation of the colors in carpets, wall papers, and furniture can be no adequate compensation for the loss of color in the lips and cheeks of the growing children or for the eye-strain, impaired vision, and a host of nervous symptoms which may more or less directly grow out of this exclusion of light from the home.

Among the many faulty habits in the home circle is the tendency of all children to assume injurious postures in reading and writing. Left without restraint the child will habitually bring the face too close to the book in reading, or will stoop over the table while writing, bringing the eyes within a few inches of the paper. Children should be taught to sit erect, not by constant chiding, but by thoughtful explanation of its importance. It is of but little avail to secure the proper seating of our schoolrooms, if in preparation of the lessons at home the child be allowed to assume at will for hours daily the uncouth and unhygienic attitudes which we so often witness. Not only do the eyes suffer, but as a result of these abnormal positions of the body, distortations of the spine are fostered and the general health and vigor impaired by the impeded respiration and circulation. In order to secure a correct posture while at work, due regard must be had to the relative height and position of the chair and table. The chair should not be so high as to prevent the soles of the feet from resting on the floor, while the height of the table should be such as to permit the arm and elbow to rest lightly upon it without forcing the shoulder upward and backward. The chair should be so placed that the front edge of the seat will be at least two inches under the edge of the table. Under these conditions it will be quite natural to assume the erect posture while reading and writing. On the other hand, if the table is too high, the shoulder is forced upward and backward and the spinal column thrown into a position of partial rotation and lateral curvature. If anyone will place the chair so that the front line of the seat will be eight or ten inches back from a perpendicular line dropped from the edge of the table, and read and write while sitting on a chair so placed they will soon be conscious of a sense of fatigue not only in the muscles of the back and loins, but in the eyes and neck, for, in order to reach the table, the body must be thrown forward ; the head then loses the support of the vertebral column and falls forward between the shoulders. To place the chair so that the front edge of the seat will rest an inch or two inches under the front line of the table, the body is at once thrown into an erect posture, the head finds its normal support and the fatigue promptly

disappears even while the work is continued. These simple principles have all been carefully worked out in the sittings of the modern schoolroom, but they should also be taught and observed in the home life of the child.

To what extent is heredity responsible for the weak eyes in the family? Are the children, for example of near-sighted parents, to be inevitably victims of myopia? I think we may safely answer this inquiry negatively. With rare exceptions weak eyes are the result, it is true, of congenital abnormalities, and that these conditions are handed down from parent to child cannot be truthfully denied; but it is equally true that in the great majority of instances the congenital defects which made the parents' eyes weak, and being neglected resulted in more or less serious and permanent impairment of vision, can be corrected by optical means, and thus the weak eyes and permanent injury be avoided. That the diseased myopic eye is hereditary in the usual sense of this term, I do not believe. That the congenital defects, notably astigmatism, which cause eye-strain and thus set up the intraocular pathologic states upon which the stretching of the eyeball depends, are hereditary no one with experience in these matters will question. The obvious lesson, therefore, is that the parents with weak or myopic eyes should place their children at an early age under professional advice, certainly before entering them at school, in order to ward off the misfortunes of vision which may have, in great measure, handicapped their own career.

## IX.

### THE PHYSICIAN'S INFLUENCE *IN RE* VACATION SCHOOLS.<sup>1</sup>

By HELEN C. PUTNAM, M.D., Providence, R. I.

Friends of free education are discussing, in current literature and social organizations, the present insufficiency of hitherto existing school methods of training for citizenship. They recognize the possibility of a cleaner government by a wiser people for a happier people. They recognize, too, that the training for self-government and happiness has been in an autocracy where the teacher's will and the printed word were law; where mental powers were cultivated through the minute exercise of tiny neuromuscular mechanisms of eye and finger upon small black characters on white paper; where memorizing, recitation and other feats accomplished with words and figures won the prizes.

Up to fifty years ago this system during the winter semester was effectually supplemented in summer by the industries of country home life, the apprentice system of learning trades, and—this of equal importance—abundant opportunity, in woods and fields and village life, for free play, wholesome adventure and communion with nature. The majority of children thus received a comparatively symmetrical mental, moral, physical and social training, resulting in fairly well-balanced character and useful citizenship. Inventions following upon scientific discovery have greatly altered occupations and ways of living. Population is becoming chiefly municipal and wealth concentrated in the hands of the few. Problems not less difficult than those our forefathers dealt with are before the people. Public schools must readjust themselves to these altered conditions and new demands.

There are none better situated to understand the insufficiency of the adult's preparation for health and happiness than well-educated physicians and, in this readjustment of school methods, the influence of medical specialists of liberal culture is to be hoped for. The appointment of school physicians as adjuncts to boards of health for the detection of contagious diseases and

<sup>1</sup> Read before the American Academy of Medicine, Atlantic City, June 2, 1900.

possibly evident physical defects interfering with school work is a step in the right direction; but a short step. Much more could be accomplished with the same amount of money if it were used for two or three large salaries, instead of ten to thirty small ones, to secure expert professional services from physicians who have been not only general practitioners, and skilful in pediatrics (as few of these numerous appointees are), but who, in addition, have qualified as school specialists by study of schoolhouses, ventilation, heating and furnishings; of physical training including play; of pedagogy and its problems in psychology including child-study; capable of instructing teachers and occasionally perhaps the older children (the latter no common accomplishment) in certain fundamentals of hygiene, personal, household and municipal, only twelve per cent. having opportunity for such instruction beyond the grammar grade. This physician could give valuable aid, probably unobtainable from any other school officials, in mothers' or parents' clubs that bid fair to become a department of public education, as the practical solution of the difficulty long experienced in securing intelligent cooperation between home and school. Sweden is the country most often quoted when this subject is discussed, and in Sweden the success of school physicians is due to the fact that they are specialists somewhat as outlined. The twentieth century promises to be an era of experts, with better primary education at the other extreme.

The vacation school movement originated in the desire of citizens to provide other influences than those of the worst streets for children living on those streets during July and August, popular observation, school reports and statistics of juvenile arrests showing this interim in school occupation to be injurious mentally, morally and physically. Other phases of this work are "fresh air parties" and "country weeks," summer camps and farms; also "summer playgrounds" that have developed into vacation schools as it became apparent that games have a strongly educative influence, and that the play spirit carried into certain forms of instruction increases the attractiveness of playgrounds.

Vacation schools (the playground continuing as a less highly organized and less expensive department of such schools) have within six years opened by private initiative in over twenty cities,



in Philadelphia and New York being under municipal conduct—the final object of all effort elsewhere. They are for children under sixteen years of age, and continue six weeks in July and August with morning sessions only. The attendance is voluntary, therefore to be successful their methods must be popular. The best results do not follow training “across the grain” after artificial methods. It is more than suspected that children in general and the individual child, also, indicate lines of least resistance that educators should take advantage of as aids to fullest development. Play is the way of living of all young animals, their natural method of preparing for existence later. The majority of plays enjoyed by children require much hard work. Therefore the spirit of play (enjoyment) cunningly permeating vacation school curricula secures as regular attendance and faithful work as do truant laws, work, however, of a different character.

The design is to *supplement* public schools and to give these children certain essential advantages that parents of intelligence and means supply by their own preference through home environment. One chief present function of vacation schools, that time is demonstrating, is that of experiment stations, with a positive influence upon regular school methods and ideas. No books are used. The instruction is, briefly, according to the laboratory method.

To encourage muscular ability and accompanying executive qualities of mind (furnished by home environment one hundred years ago) manual training is prominent in the form of wood work, as carpentering, whittling, fret-sawing, chip-carving; or of constructive work with cardboard or flexible bands of iron; or of household arts, as cooking, care of rooms and of the sick, sewing, mending, embroidery. The use of a score of different tools, of varieties of wood and other materials, is fascinating to practically all children even when there exists a strong liking for books. Their natural creative instinct, the delight of seeing and owning the results of their labor, and enjoyment of occupations that permit free movement instead of exacting the quietness so irksome and unwholesome for them—all are utilized by the wise instructor for certain educational purposes. Manual dexterity is

as great an advantage to professional men, with its accompanying mental qualities, as is book learning to the so-called "industrial classes." Such manual training will promote home thriftiness and decencies, both within and without the house, where the ability to drive a nail and take a stitch, and the mental executive bias thus nourished in education—instead of neglected—counts for much in making homes. Such training, combined with regular school work, recognized in the schools on an equality with the latter, must encourage the hand skill our times are suffering from lack of, thus lessening the overcrowded ranks of inefficient teachers, clerks, etc., eventually giving us a higher grade of material achievement, a more comfortable living. Of prime importance is the consideration that there must result a higher class of citizen because of certain mental and moral qualities that manual work cultivates in children. They can only be enumerated here. They are intelligent observation, practical judgment, executive ability and habit, accuracy, perseverance, and the ambition to produce honest and creditable results. We must recognize the great social need of such qualities as these, conspicuously in the poorer homes and by "wage earners."

To city children nature study is partial compensation for the great misfortune that their childhood cannot be passed in the freedom, beauty, and wholesome simplicity of country living. As the summer season dictates, this is the chief feature of vacation schools. Indoors flowers and other phenomena of the vegetable kingdom are studied from samples in the children's hands; aquaria, window boxes, pet animals, and museum specimens encourage habits of interested observation and powers of description. A school garden out of doors gives every child the supreme joy of troweling, planting, watering, and watching development under his own fostering care. The visiting insects and other animal life, weeds, varying conditions of soil and temperature, under educated oversight teach him the interdependence and harmony of natural laws. This is knowledge at first hand, the most lasting kind. Acquaintance with vines, shrubs, and flowering plants for making home attractive, encourages them to develop the possibilities of their own backyards and little corners of earth. School gardens in Germany, Russia, France, and Switzerland

are numerous and they are increasing in America. Educators begin to recognize not only the immediate value of this garden work for both bodies and minds, but the political and social expediency of early interesting boys and girls in productive occupation. In countries where agriculture is the basis of much of their prosperity, free schools properly should cultivate intelligent interest in this direction, even in the mass of young children, with primary scientific instruction in more advanced grades, that our public schools may recruit the farm as well as office and shop, and that the people may have at least the rudiments of a culture that nature evidently intended, but of which accidents of a short-sighted civilization threaten to deprive them.

Excursions take place every week—a very efficient drawing card utilized to its fullest pedagogic possibilities. These peripatetic schools or classes, with special instructors, visit city parks, museums, art galleries, industrial establishments and points of local historic or scientific interest. The excursions most largely arranged for are into the country for nature study and sketching first, closing the event after lunch with free play and enjoyment. Although tens of thousands of children have been transported by boats and electric or steam cars, no accident to life or health has occurred. The numerous little groups into which the school is divided, each with a teacher, go to their several study grounds previously assigned, it may be a river path, a woodroad, a field-hedge or hillside, for their class work. "Bird day" is prepared for during the preceding week by handling and studying mounted specimens of birds native to that locality, learning their song and habits, and why this excursion must be in late afternoon hours and to a place of running water, trees and underbrush. They taste the hunter's intensity of enjoyment in the stealthy approach and quiet waiting, and the child's irrepresible delight when the game is found. Sympathetic acquaintance with habits and beauties of living creatures we trust may eventually supplant the primitive slaying instinct of the race. In corresponding fashion they have "insect," "rock," "beach," and "flower" days, when the objects studied in the classroom are greeted in their habitat with the delight of welcoming old friends; or it may be a day to a well-equipped model farm.

To learn facts is not the only, nor perhaps the chief object of all this nature work. The child is inevitably forming tastes that will guide him in choice of recreations and occupations (at least in his leisure time). That successful eight-hour day agitation may be a benefit, it concerns us all to encourage those extra free hours being given to objects not less wholesome than the former labor. Interest in country phenomena, love of its sounds and sights, simple ability to make a yard and house attractive, cultivated in the childish brain, must often influence home makers to choose suburban living in these days of cheap rapid transit and high city rent for cramped quarters. This movement more fully developed in schools, it is reasonable to believe, will materially help solve the tenement house problem for many thousands and encourage the tide of population to ebb countrywards.

Art and nature study are correlated in these summer programs. Accuracy of observation is increased by a water-color sketch. Foliage and fruit, mounted birds and butterflies, human models and finally landscapes are given them to reproduce in colors. Without seeing it one can hardly believe how much a skilful teacher can accomplish with children from eight to fifteen years of age in brush, outline and composition work and design, training to see appreciatively. To cultivate memory, or imagination, and to strengthen their understanding of language, a word picture may be read then for reproduction, of perhaps a moonrise on the ocean or of a harvest field ; or a story is given them to illustrate. Decoration is introduced to them by applying their flower sketches to designs for book covers, wall-papers, etc., or geometric figures may be used, with the final object of forming tastes. On excursions it means more than the present event to call attention to the ripples, cloud shadows and varied craft upon the water, the outlines against the horizon, views on roadways and pictures made by groupings of trees and rocks, sunset glow and noonday haze. To many children these are the only opportunities of their lives to pass a country day in the companionship of an educated, refined and sympathetic friend. The novelty of the impressions renders them most vivid and lasting. We can only mention the fact that music also is utilized for its esthetic influences.

The advantages of outdoor gymnasias do not need demonstra-

tion to this audience. Imagine a wide-spreading American elm, with leafy shadows flitting over groups of children from hot city streets, who under the guidance of an expert are keenly delighting in their achievements on bars, ladders and swings. This I saw in one of the very few schoolyards where the city fathers have preserved a beautiful tree. About the gymnastic games following the apparatus work I would say a word. It is almost appalling to think that the last stronghold of children—their play—is being invaded and utilized for pedagogic purposes. The truth is that play and playgrounds are being municipalized out of the world. With no opportunity but ill-smelling streets and prison-like yards, with policemen and ordinances coercing active play into chiefly dodging out of sight, and into even criminal mischief, from the repressed play hunger of growing boys and girls, it has come to pass that city children are forgetting how to play and losing the vigor of body and character given by play. The recognition of this is behind the playground movement and must not be forgotten as school boards take up vacation work. We believe thoughtful citizens should be jealous for preserving genuine play in vacation schools.

Gymnastic games, devised for play, for exercise, for mind, and for character, have been adapted to the city conditions of small space and large numbers. Briefly characterized they are competitive, to arouse interest and enjoyment; the competition is between groups, to encourage the spirit of cooperation as well; they require physical and mental force and are simple to execute. If too elaborate they will not be popular. The stimulation of laughter and fun, the muscular and circulatory invigoration accompanying these active outdoor games, the onlooker must contrast with a schoolroom gymnastic ten (or fewer) minutes, in narrow aisles and heavy atmosphere, with formal movements. There can be no doubting which furnishes the physical and mental refreshing—the ideal of school recesses and calisthenics. The same appropriation expended for game specialists, instead of gymnastics, would accomplish very much more for children *under the limitations of time and surroundings at present necessary in public schools*; besides furnishing children with plays to be used elsewhere, and, fully as important, assisting character-build-

ing. Under wise control these games encourage regard for fair play and justice, powers of leadership and initiative, ideas of co-operation to win and of friendly competition, intensity of effort, agility of mind as well as of body, resourcefulness, generosity and courtesy.

Earnest students of the times have awakened to the question: How does free public education *train for self-government*? Its solution was first undertaken in certain higher (private) institutions, Amherst College among the leaders, by establishing a student governing body. This, like college gymnastics twenty years ago, was soon recognized as beginning too late to secure the best results. Primary and grammar grades are social and moral as well as intellectual seed times. In them the child, *fitting for membership in a self-governing community, is trained to obey an autocrat*. The development of reasoning powers upon questions of personal and particularly of social conduct is wholly neglected. Yet in school government, under judicious supervision, is the great opportunity of school systems to cultivate those ethical forces by which the career of individuals and the success of present civilization must be ultimately determined. A few lower-grade and vacation schools are experimenting to harmonize conditions of school life with democratic government—decided upon by the forefathers—and the results are encouraging. Children, proud of the responsibility of making and administering their own laws, responsive to the influences both of public opinion (in their classes) and from the principal's office, are growing into an understanding of and loyalty to social order, are developing powers of discrimination as to motives and persons, are acquiring an inclination towards upholding community interests—all of which, starting in a play experiment, can not fail to influence for the better the mature man and woman. They are practising in a form of obedience higher than that developed by personal authority, cultivating the only spirit of obedience that should guide self-respecting members of a democracy—voluntary obedience to the right whether called for through the agency of relationship, of government, or of events.

This is *motif* and methods in the vacation movement, to care for less favored children during summer months, to help fill gaps

in their training, and to connect certain broken currents between school and citizenship. Good teachers are needed manifestly, to hold voluntary attendance, to give the special instruction indicated, and to conduct such experimenting efficiently. Here is where I bespeak the influence of members of the medical profession. Forming, as such may, a wise standard, use influence, as citizens and government officials, towards encouraging and requiring school committee men to develop that standard, at least until the day when school affairs, as well as municipal, shall be no longer entrusted to politicians, but to men whose business is education and administration, and whose position depends on capacity as in any other business.

The great problem is the selection and preparation of superintendents and teachers. Political policy has been to pay the lowest salaries to teachers of the youngest grades—with the results to be anticipated. Unanimous experience declares that educational experts are needed in vacation schools, and that they are worth the money they cost. They need head teachers skilful in the art of instruction in their special subjects, and in sympathy with the more scientific truths of psychology and child-study formulating by eminent students. They need superintendents of integrity and executive ability, awake to the better possibilities of education through their acquaintance with physiologic psychology and altruistic sociology.

## X.

### HOW ONE COLLEGE ENDEAVORS TO TEACH SOCIAL HEALTH PROBLEMS.<sup>1</sup>

BY CHARLES MCINTIRE, A.M., M.D., Lecturer on Sanitary Science, Lafayette College.

Dr. S. W. Abbott, the secretary of the Massachusetts State Board of Health, in a monograph on "The Past and Present Condition of Public Hygiene and State Medicine in the United States," prepared for the present Paris Exposition, quotes with his approval the following definition of hygiene as given by Dr. John S. Billings, in Buck's "Treatise on Hygiene and Public Health:"

"In its broader sense, the study of hygiene includes the examination of the conditions which affect the generation, development, growth and decay of individuals, of nature, and of races, being on its scientific side coextensive with biology in its broadest sense, including sociology, rather than with physiology merely, as some writers state."

Consequently, when the lectureship on sanitary science was established at Lafayette, the definite purpose of projecting the course along the lines of the social problems of the day rather than to attempt the usual technical method of teaching that science, had the approval of excellent authority.

In the curriculum of the college, the subject is offered as one of the minor electives to the seniors in the general culture courses. The course is not apt to be selected by the men who are looking forward to the study of medicine, law, or theology because other subjects of direct value to their future profession are offered to these. The members of the division consist of those who are planning to enter into business pursuits, or to follow journalism or pedagogy. They are the men who are apt to be men of affairs, who will be found upon boards of health, public charities, or school control, where they will be confronted with many of the problems presented in the course. The effort is made to give them the broad principles rather than the details, to emphasize the philosophy rather than the scientific technique, hoping, thereby, to enable them to understand and act intelligently upon whatever questions may be presented to them by experts.

<sup>1</sup> Read before the American Academy of Medicine, June 4, 1900.



The subject itself is not in direct sequence of any studies preceding, and being at the end of the course, does not lead up to anything else. Hence it can be made a course for the imparting of facts without especial reference to mental discipline.

The definition of sanitary science in Gould's "Dictionary of Medicine," *i. e.*, the science treating of the prevention of disease and the promotion of public health, affords a convenient division of the subject. During the first term, the topics relate more closely to the prevention of disease, *e. g.*, the sanitary treatment of communicable diseases, including the special precautions such as notification, isolation, disinfection, etc.; and the general precautions included in the sanitary problem of water supply, food inspection, disposal of sewage and garbage. In the second term, the attention of the class is directed to the other half of the definition, the promotion of public health: The conditions of society leading to the deterioration of public health. This includes a brief survey of the classification of society by social science students, and the passing under review the specific conditions which may, either directly or indirectly, tend to diminish the general standard of health of a community; and making suggestions looking to the amelioration or removal of the baneful conditions. *E. g.*, the problems of infancy and childhood, where the environment is unfavorable (the life of infants, in the congested tenements, and in institutions serving as examples), are taken up and the suggested remedies discussed. The modern city with its many unsanitary conditions; modern industrial life, with its grind and depressing influence upon mind and spirit; pauperism and its influence upon the public health are samples of additional topics in this branch of the subject.

The method of teaching is largely by recitation. I know of no text-book adapted to our use and a rather full set of notes is mimeographed and furnished to the class. These are not written every year, but the entire series is revised and parts are rewritten every year, so that all the lectures are rewritten in four or five years. A recitation is assigned from these notes and the subject is discussed and enlarged upon by question and illustration during the recitation.

A synopsis of one of the chapters will more fully present the

attempted scope of the course than any prolonged description.

#### THE PROBLEM OF THE CITY.

#### I. All sanitary questions become more difficult of solution :

- (a) As the number of people involved is increased,
- (b) As the financial interests at stake diversify,
- (c) As there is a cleavage of the people into social classes,
- (d) As the organization of the industrial world becomes more complex.

#### II. The tendency of modern civilization is largely towards cities. The fact illustrated by quotations from U. S. Census Report. Some of the reasons for this are :

- (a) The substitution of machinery for manual labor in all industries, making necessary
  - (1) Fewer farm hands,
  - (2) The erection of large buildings for factories.
- (b) Improvements in transportation,
- (c) Division of labor in industrial pursuits.

#### III. The problem of the city depends, in part, on :

- A. Overcrowding,
- B. Individual carelessness,
- C. Lack of moral integrity.

#### A. Illustrations of overcrowding :

- (a) The causes leading to overcrowding are :
  - (1) The necessity of being on time at one's place of work,
  - (2) The lack of rapid transit,
  - (3) The gregarious nature of the human race.
- (b) The evils of overcrowding are intensified by
  - (1) The normal growth of a city,
  - (2) The indifference, ignorance, or carelessness of the property owner,
  - (3) The greater possibilities for dirt to accumulate,
  - (4) Crime and pauperism, which vary directly with the density of the population.

#### B. Individual carelessness.

- (a) Through ignorance,
- (b) Through indifference,
- (c) Through necessity.

#### C. The lack of moral integrity.

- (a) On the part of the property owner,
- (b) On the part of merchants.

#### IV. What can be done?

#### A. For overcrowding :

- (a) Condemn unfit buildings,
- (b) Supervise erection of buildings,
- (c) Provide rapid transit,

- (d) Establish small parks,
- (e) Require proper sanitation of streets.
  - (1) Proper construction,
  - (2) Proper care.
- (f) Provide public baths and laundries,
- (g) Develop manufacturing industries in the suburbs.
- B. For individual carelessness :
  - (a) A campaign of education to remove ignorance,
  - (b) Strict sanitary supervision to offset indifference.
- C. For lack of moral integrity :
  - (a) Seek to mold public sentiment,
  - (b) Maintain a strict supervision,
  - (c) Seek to provide habitable houses and pure food marts.

The course has not been carried on long enough to fully estimate its value. Evidence is not wanting that the desired end has been accomplished. The men out of college have been alert to faulty conditions about them and have been able to make intelligent suggestions. The members of the successive classes are interested and manifest an intelligent grasp of the subject implying thought and mental assimilation upon their part. It gives them information upon topics of present-day value, of vital importance, and I feel assured, should any of them be placed in any position requiring oversight in sanitary matters, they will be in a position to make the special investigation necessary to perform their duties in a much shorter time, and to be much more efficient, than if such a course had not been given.

## DISCUSSION.

Dr. L. B. Tuckerman, of Cleveland :

I was much interested in the part of the symposium relating to the medical inspection of schools. I have made considerable effort for several years to have this inspection instituted in Cleveland, and only last year did we get around to its adoption. One instance illustrating the necessity of this inspection was that of a teacher who attended her school while suffering from a sore throat. Her physician had told her it didn't make any odds; that she might go on teaching. Within two weeks' time five children out of her room died, and there were over forty cases of diphtheria in the school traceable to that source of infection.

With regard to Dr. Walk's paper, in the comparison of the home and institutional treatment of defectives, there is one consideration, a very weighty one, which he failed to mention. That is, what happens to these defectives when they come to puberty. Of course, with the women it is simply yielding to the solicitations of some scamp, and the birth of an illegitimate child. But with the men it is different. There have been several murders committed within the last ten years in my own city under aggravated circumstances by those only slightly defective. I know of an instance of a boy, only partly defective, not enough to require detention in an institution, who dragged a ten-year-old girl under a building, outraged and murdered her, and they hung the boy. That is an instance illustrating how the suggestion discussed in the president's address, of asexualization, applies *a fortiori* to male defectives. They are as dangerous as wild animals when at large in the community.

Dr. J. W. Grosvenor, of Buffalo :

One paper was read on Saturday morning concerning parental training of children. I wish to call attention to a certain custom which I have observed more or less in my own city in a few families, and which may be prevailing in other cities. It is that some parents teach their children to call themselves by their first name. For instance, the father, whose name is John, teaches his boy to call him John instead of papa or father. The mother will teach the girl to call her Mary instead of mamma or mother. I protest against this custom, and I fear that if stronger protests are not made against it, it may become more extensive. I feel that it is damaging to the children as well as to the parents, in that it degrades the dignity of the parental office, and that it undermines its authority. The child recognizes the fact that in calling his father John he brings down the father to his own plane, and consequently he will not be so likely to recognize his authority. Some of these parents endeavor to sympathize with their children by using the same language that their children do. We are all aware of the fact that children two, three, and four years old, have a language which they use with their

playmates, and parents are endeavoring to use the same language with their own children. This seems to me to be another danger to the authority of the parent.

### The President :

In the line of what Dr. Grosvenor has said I might say that I knew of an instance of a small boy last summer who came into the house almost crying, and his mother asked him what was the matter. He had been outside with his father; he said : " Well, I did something and Will scolded me " — the child was a boy about five — " we both got a little mad and then Will whipped me."

### Dr. S. A. Knopf, of New York :

Dr. Engelmann, who had a very admirable paper, is not here, and I do not know whether I have a right to discuss it in her absence. She spoke to us of the necessity of small homes in the suburbs of large cities. No one who has made a study of hygiene will deny the necessity and the utility of such homes, but it seems to me so impracticable to apply that to large cities. Imagine in New York, for example, the attempt to supply for every tenement which harbors fifty families, fifty little homes outside of the city. I believe the solution of the home-life problem will be in the destruction of old tenements and the erection of new ones in compliance with modern sanitation.

The second paper read referred to the instruction of children in the early age, and it was mentioned that a mother slapped her child at the age of six months. I have not very much experience, but I doubt the utility of such a plan. I believe all children can be raised without being slapped.

The third paper was also on the influence of early training. I believe the whole thing could be solved by adding to our higher schools for the education of young girls a " chair of practical motherhood ". Let them be taught what they ought to do when they become mothers.

We had a sermon the other day on alcoholism. I am sure I enjoyed it from the bottom of my heart. Although I do not agree with everything our distinguished Rev. —, our distinguished colleague said, I really think the physician should always strive to choose a happy medium. There is such a thing as abuse of alcohol, we all know. There is not a person in this room that does not heartily disapprove of it, but I want to say a word on behalf of the medical profession in regard to the use of alcohol. I have had the pleasure of dining with a good many of them, and have assisted with the entertainment of many, and I have never seen yet a medical confrère intoxicated at any of the public dinners where wine or champagne was to be had very freely. I wish also to say that it is not in the home that people are led to become drunkards; it is in the saloon. I have adopted the United States as my home and am enthusiastically an American, but there is one American habit that I disapprove of from the bottom of my heart — that of treating. It is in treating that intoxication is brought about. A young man, out of

politeness, cannot refuse to drink, —he is treated and has to treat. The more friends he has the more he has to drink.

I also wish to say that I approve of the remarks of my distinguished friend in what he said in reference to alcohol and disease. My experience with consumptives has taught me to consider alcoholism a phthisio-genetic disease.

Dr. G. W. McCaskey, of Fort Wayne, Ind. :

I wish to express the stimulating influence which this discussion has had upon me personally. The suggestion quoted by the President, that the work of the Academy is discharged, seems to me absurd. I think its work can only be finished when crime, pauperism, and insanity have passed away entirely. The real problem which confronts this Academy and the medical man all over the world is the betterment of the human race; and among the more important propositions for this purpose are inspection of schools, of the homes, and the regulation of marriage. The inspection of schools is making considerable progress. In Fort Wayne we are doing something in that line. The daily inspection of schools as brought forward in these papers is one of the prime needs. The inspection of homes should also be pressed further than it has been. The medical profession is the guardian of the health of the community, and certainly has the right, under certain conditions, to enter homes and see that individuals within them are healthy. In regard to the regulation of marriage, it seems to me that this is very difficult. Of course, we have a right to regulate marriage within certain limits, but there are a great many difficulties. Along these lines the Academy is working, and it seems to me great good must come.

Dr. C. T. McClintock, of Detroit :

The inspection of schools in large cities is being carried out, but in smaller cities this is impossible. The principals of schools should be instructed by teaching and by visits to our hospitals until they know the symptoms of diphtheria, scarlet fever, etc. If the principal knew enough to know that the case was suspicious much good could be accomplished. The only mistake that could be made would be to suspect a case when it was not the disease. It seems to me that the business of the medical profession is, as it were, to cut their own throats,—train people until they don't need us.

Dr. Leartus Connor, of Detroit :

The great underlying principle of the discussion of Saturday and this morning on the admirable series of papers is this : The attempt to find out the weak points in our art of training men. We have come upon an age when every child is to be trained, and every one suffers if all are not wisely trained. The glory of our age is that all are to be trained by the best teachers. Further, we have a scientific method which we apply to the growing of all things, and now are trying to apply it to the growing of children into men. The interest I have in this Academy is that our studies seek to eliminate

chance or guess, so that we shall realize that of all the possessions of earth the true man or woman rightly grown is the best of all ; and that our children, rather than houses or lands, are the reward and glory of our lives. The physician is the only man of all professions to instil this thought. He is the one who can cast aside traditions and is permitted to decide the question of to-day with reference to their surroundings. The papers read in this meeting I have no doubt will help in this mission work of the physician. The man and the woman rightly trained will settle questions which bother us. Educate the whole boy into the whole man and he will settle new problems as presented. Until that is our keynote we will have failed to do all we could have done.

#### Dr. Makuen :

Dr. McClintock's statement to the effect that by training the defectives we might do away with the need of physicians reminds me of a statement made by Professor Fetter, of Leland Stanford University. He said that if we take care of these defectives without adopting some means of getting rid of them we are simply laying up future work for ourselves, and I think we need not hesitate to carry out these preventive measures on account of the fact that we may not have something to do in the future. It seems to me that if we continue to keep these people going and make them more useful we are certainly laying up for ourselves much work in the future.

#### Dr. Edward Jackson, of Denver :

There are one or two points which I would like to add with reference to the paper on the hygiene of vision in the home. First, in reference to the incandescent light, and the difference of its hygienic effect from that of any flame. There is a very much greater steadiness in the incandescent light than in the flame. The Welsbach incandescent mantle furnishes a more intense light and perhaps is more generally useful than the incandescent electric lamp. I wish also to emphasize the importance of having abundant light in the home. This is very frequently lost sight of. The eye is intended for light and is not healthy without it. I suppose no pair of eyes in this room, if light were totally excluded from them for 48 hours, would be in a normal condition. The suffering often referred to excessive light is due to the use of the eyes when they should not be used. Photophobia is an indication not to use the eyes at all, and not an indication to use them with less light. The suffering from exposure to light is largely a matter of contrast ; bright light falling on one part of the retina with the other parts in comparative shadow. The enormous adaptability of the eyes to the various kinds of light leads us to forget the need for good light under all circumstances when the eyes are to be used.

The paper by Dr. Putnam implied an idea that it would be peculiarly the part of this Academy to develop. The idea of medical inspection of

schools to prevent epidemics of disease has gotten a pretty good hold on the mind of the general profession and the general public. It has enthusiastic promoters outside of our own ranks, and it has reached a stage where perhaps we can let it take care of itself. But, there is another idea regarding the medical aspect of schools and the duties of the profession in the school that was implied in the paper; and that was the expert supervision of the schools from the point of view of the requirements of the individual scholar in his or her development. That is the thing that seems to me more important than any possible exclusion of contagious disease or possible prevention of epidemics. It is the heart and core of the idea of education, and it is not at all appreciated outside of the profession, and rather inadequately appreciated inside. I hope that, while it is too much to attempt to make it the chief theme of discussion this morning, in the future it will be more fully developed than ever yet in the meetings of the Academy.

The point mentioned by one of the speakers in discussion, that of the impossibility of providing separate homes for the great masses of humanity that are herded together in our larger cities, to my mind only illustrates the importance and scope of our work. If human beings, through the development of hundreds of generations, have acquired certain characteristics, so that they demand for healthy life and development a certain amount of separateness, then it is our business, if we see this fact, to insist upon it at any cost,—social requirements, traditions, law even; that appear to be opposing natural laws must be met and dealt with in such a way that we can attain our object. If it is better for the human beings that they grow up separately in suburban residences, then the traditions must bend to that fact, and it is the part of our discussions here to reinforce each other in the view, and our part outside of the Academy to enforce that view on our fellows.

Dr. J. W. Grosvenor closes :

My paper has been criticized in one point, and that is that it was a sermon. If such was the case it was a scientific sermon. I do not think I made any statements not in accordance with scientific experiment, scientific observation, and scientific experience. I hold in my hand a paper which is a copy of an editorial published of late in the *Homiletic Review*. This paper contains the views of eminent scientists, and for the delectation of my good friend I wish to read two lines written by the medical director of the Children's Hospital of Berne, in which he says, "From a standpoint of public hygiene we must oppose with the utmost fervor the use of alcohol as a beverage for children".

Dr. Carhart closes :

Dr. Jackson has just said that the medical inspection of schools has been pretty well ventilated both in the profession and among the laity, and in most of the larger cities it has been taken up. I think there is a little



ground for professional agitation in perfecting this medical inspection of schools. Although several cities, Chicago, New York, and Boston, have medical inspection of schools it seems to me that it is not done as thoroughly as it might be done, and I think it should be done systematically and thoroughly if done at all. It is of no particular use to go through schools for a few weeks, and select the cases, and notify the teachers, and then have the new board of education drop the whole matter. If done it ought to be done regularly and systematically. I think it can also be done in the smaller towns. At Peekskill, where I live during the summer, I started an inspection of the schools in 1897, and I had the usual result of doing the work without particular support. I did impress it upon the principals, but the boards of education did not consider it worth while to be carried on farther. As usual with most professional men, when they want to do something for the public, the politicians and laity always have suspicions that they have an axe to grind.

I think there is one branch of medical inspection of schools that has not been touched at all. I, being an oculist, may put a little too much emphasis upon it. When I went through the schools I found so many children who had asthenopic symptoms, granular lids, and more or less symptoms of eye strain. I do think that no child ought to be forced to work hours at a time when he has weak eyes. I want to emphasize another thing, that the defective children, who do defective work, are not necessarily defective. They try to do the work, and very often do it at a disadvantage. One disadvantage is that when a child is supposed to be dull, it may be it has not the nerve force to work at a disadvantage with weak eyes. Another child can work hours at a time if there is persistent eye strain. Eye strain is one of the things that can be relieved by proper treatment. In New York the medical inspection hardly touches this broad field. The medical inspectors meet the teachers and look over half a dozen children who have been taken out of the schoolroom by the teachers, almost entirely cases of conjunctivitis, diseases of the scalp, or perhaps of sore throat. No teacher is in my estimation competent to know whether the dull child is dull because of defective brain, or merely because of weak eyes and I do think we ought to have a medical inspection of schools at least in part by competent oculists.

Dr. W. McN. Miller, of Reno, Nev. :

In connection with this matter of inspection in schools, in the present age of abundance of literature, our attention is not brought to the best. I wish at this time to take the opportunity to call to your attention a most excellent work upon this subject, entitled "Health in School", published by an English firm. The author is Clement Dukes, physician of Rugby. I can assure you that there is no better book on the subject.

Dr. S. A. Knopf :

I rise to say one word on school inspection. Everything has been men-

tioned in regard to school inspection except tuberculosis. I ask is it not just as dangerous to have a tuberculous child or a tuberculous teacher in the school? There should be thorough examinations for tuberculosis. In Germany such examinations are made every six months. The children who do not attend regularly, the school physician sees at home and there have been found forty-five per cent. suffering from tuberculosis in one form or another.

Dr. Helen C. Putnam closes :

I want to add nothing, but simply to emphasize the fact that it is probably in the power of every physician, either as physician or government official, to do something practical to improve conditions of schools and homes by encouraging the effort making to bring parents and teachers in touch by means of parents' clubs, for mutual information concerning the child and aims and methods in his education; also physicians, in private and in office, can use influence towards raising the standard for teachers for the younger grades—and salaries accordingly.

Dr. Makuen :

I think the academy is to be congratulated upon the papers of this symposium. It seems to me that the important thing in connection with questions of crime, pauperism, delinquency and defectiveness is the early training of children as has been brought out so clearly in the discussion and in the training of children the most important thing is to enlist the interest of the children in the work. I am convinced that Elbert Hubbard is right in saying that manual training should be given in the kindergarten, through the preparatory school the high school, and the college. I am convinced also that there are children for whom manual training may be contraindicated, hence the desirability of the careful study of the needs of individual children.

## SECRETARY'S TABLE.

The arrangements for the next meeting of the Academy are progressing. The Hotel Aberdeen has been selected for headquarters and already some papers have been promised.

Two separate topics will be suggested for discussion at the meeting. The council instructed the Committee on Program to invite papers for a symposium on "Reciprocity in Medical Licensure." While a great deal has been said and written on this subject in the past few years, there has been truly no scientific discussion of the question. It is hoped the opportunity thus afforded will result in a discussion worthy the name. The committee submits the following analysis of the subject, which it believes is reasonably complete.

- a.* The purpose of reciprocity.
- b.* The conditions essential to obtain reciprocity.
- c.* The demand for reciprocity.
- d.* The obstacles in the way of reciprocity.
- e.* Other methods.

The theme for the other symposium is "Institutionalism." Large numbers of the retrogressing classes of society are brought together under one management, if not always under one roof. This condition is the resultant of social forces and is, itself, producing certain results. Both the causes and the results are closely intertwined with questions purely medical, which makes the topic a fitting one for the Academy to discuss. There is needed in the discussion a clear statement of what institutionalism really is, which involves the recital of the causes leading to its devising and development; a discussion as to the necessity or need for it; then, the presentation of results; a statement of abuses and suggestions for its betterment. The whole scheme is concisely stated in the following table.

### INSTITUTIONALISM.

- a.* What is it?
- b.* The need for it.
- c.* The results
  1. Upon the managers.
  2. Upon the inmates.
  3. Upon the community.

d. The abuses

1. In management.
2. In its use by the people.

e. Suggestions for betterment.

Correspondence is invited regarding the preparation of papers for either symposium, or upon subjects not connected with them.

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In a circular issued to the fellows shortly after the Atlantic City meeting, the Secretary suggested two plans in connection with the journey to St. Paul from the East. Several of the fellows, casually met, have spoken favorably of these plans, but very few letters expressing a desire to make use of one or the other plan have been received. As this expressed desire does not bind the writer thereof by any pledge, it is hoped that all who are hoping to be able to attend the meeting, and would care to journey as an Academy party, will at once write the secretary. With the present small list it is useless to make any effort to arrange for either plan.

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Attention was called in a recent number to the generous position taken by the New Jersey Board of Examiners regarding the licentiates in medicine of other states. We are glad to publish a resolution adopted by the Virginia Board, which places the Old Dominion among the states practically solving the reciprocity question. The resolution reads :

*Resolved*, That the Virginia State Medical Examining Board desires to reciprocate with the Medical Examining Boards of other States, but deems it necessary for its own protection, that every applicant claiming such recognition shall present, with his petition, a diploma from a reputable college, together with an attested certificate from a State medical examining board, and shall pass a satisfactory oral examination before a committee of the Board. Having complied with these requirements, a certificate will be issued on payment of the usual fee.

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## BOOK NOTICES.

SUGGESTIONS TO MEDICAL WRITERS. BY GEORGE M. GOULD, A.M., M.D.  
Philadelphia : The Philadelphia Medical Publishing Company. 1900.  
185 pp. Cloth.

Dr. Gould has gathered in a single volume many of his own articles and added several from other pens. He divides the sub-

ject into ten chapters : Introductory suggestions as to medical English ; titles, references, etc. ; orthography, punctuation, pronunciation ; the use of words ; medical paleography ; style ; rules for editors and publishers of medical journals ; difficulties of medical reporting ; some ethical questions ; history and psychology of words ; concluding with an index. Two facts are very evident : (1) The average writer of medical papers will be greatly assisted were he to secure a copy of this book and study it carefully. Indeed this statement can be widened ; there are very few who would not be helped by reading this book. (2) Many readers will not always accept without opposition the statements of the author ; it may be because of their rugged rhetoric.

It is a book worth reading, worth considering, worth heeding.

**THE OTHER SIDE : A BRIEF ACCOUNT OF THE DEVELOPMENT OF INDUSTRIAL ORGANIZATIONS IN THE UNITED STATES AND A STUDY OF THE ADVANTAGES THAT CAPITAL, LABOR, AND THE CONSUMING PUBLIC DERIVE FROM THEM. BY LYMAN HORACE WEEKS. New York : The National Publishing Company. Paper. 228 pages.**

This monograph presents the argument favorable to trusts clearly and concisely. While not entirely judicial, it can be read with profit by anyone desiring to arrive at just conclusions regarding these industrial combinations. The titles of the various chapters : I, An Economic Evolution ; II, Amalgamation of Corporations ; III, Administration and Production ; IV, Competition not Destroyed ; V, Capitalization and Ownership ; VI, Foreign Markets and the Tariff ; VII, Capital and Labor ; VIII, Recognition of Organized Labor ; IX, Supervision and Regulation ; X, Anti-trust Legislation Futile ; XI, Notable Individual Opinions.

Prof. John Uri Lloyd's "Stringtown on the Pike" appearing serially in the *Bookman* is announced to appear in book form this month. Dodd, Mead, & Co. are the publishers.

*Public Health Notes*, the weekly publication of the Marine Hospital Service has been greatly improved of late by adding a table of contents to each number.

It may be remembered that the well-known publishing house of J. B. Lippincott Company of Philadelphia was burned out a

few months ago. Recently the firm have purchased a number of old fashioned dwelling houses on East Washington Square of the heirs of Horace Binney, one of the famed Philadelphia lawyers. The houses occupy the site of the old Walnut Street prison, built before the Revolution, and a place where "rebel" prisoners were incarcerated during the British possession of Philadelphia in the Revolution.

On this site, the Lippincotts propose erecting a building in every way adapted to their requirements, when they will be able to promptly issue their medical publications, as well as to add new volumes to the number from time to time. They have just issued a new catalogue illustrated with portraits of many of our leading medical writers.

Number 2 of volume 1 of *The Nursery*<sup>1</sup> has been sent to us by the publishers. It aims to treat of "everything mothers need and ought to know as to the care and health of babies and children." Judging from a single number, it is making a laudable effort to accomplish its ambitious design. The number includes articles on summer diarrhea, weaning, food recipes, and summer fashions.

MEDICAL COMMUNICATION OF THE MASSACHUSETTS MEDICAL SOCIETY,  
Vol. xviii, No. 11. 1900. pp. 217-594; 41-68.

The leading paper in this volume is the annual discourse by Dr. Arthur T. Cabot, on "Realism in Medicine." There are 19 other papers, eight of them being devoted to various phases of pneumonia.

<sup>1</sup> *The Nursery*, 10 cents a copy, \$1.00 a year. The Van Publishing Co., 254 W. 54th Street, New York.

# BULLETIN

OF THE

## American Academy of Medicine

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THE AMERICAN ACADEMY OF MEDICINE is not responsible for the sentiments expressed in any paper or address published in the BULLETIN.

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### THE OPPORTUNITY OF THE SMALLER MEDICAL COLLEGES.<sup>1</sup>

BY BAYARD HOLMES, B.S., M.D., of Chicago.

In the course of my correspondence as secretary of the Association of American Medical Colleges, the deans of the smaller schools have complained of their inability to follow the larger schools in their rapid advances in educational methods and requirements. There are some particulars in which the smaller schools are at an advantage, and I shall try to point out some of the greatest importance.

The better teaching of medicine requires smaller classes and more intimate association of teacher with a few students. The larger schools have too many students and too few teachers. Education is not so dependent on *buildings, books, and demonstrations* as it is on the presentation of the living, growing student and investigator in the person of the familiar, enthusiastic, and sympathetic teacher. The greatest and most important equipment of the medical school always was and always will be the medical schoolmaster, and the essential quality of the medical teacher is manhood,—broad, well-developed manhood. To this must be added ability and even necessity to teach, and some knowledge of the subject.

The smaller schools can have good teachers. Men are, after all, abundant,—they grow fast. Even the ability to lead comes with leadership. Small schools can pay adequate salaries, if

<sup>1</sup> Read before the American Academy of Medicine, Atlantic City, June 4, 1900.

there is any excuse for their existence. At least one of our leading medical colleges has been specialized to the making of medical teachers. It is the great normal school for medicine. But outside of this unutilized supply there are in every college a number of good men ready to devote themselves to the inspiring labors of medical education. All they need is the opportunity on a small salary and a permanent position.

The second requisite of good medical teaching is also within the grasp of the smaller schools. It consists of laboratory equipment. Suitable buildings and adequate equipment are rather cheaper in the smaller cities per student. The ground rents are small, buildings are better lighted and cheaper, and the actual machinery of educating costs no more.

Every small city has or can have better and more intimate control of the clinical material than the larger cities where two or three medical schools compete with each other for the public hospitals and dispensary work. Nowhere is the baleful influence of competition more beautifully illustrated than in the loss of the educational power of the great public hospitals of our three great cities.

The medical library is almost as necessary to the medical school as the medical student himself. This powerful engine of education is now, thanks to Dr. Geo. M. Gould and the Association of Medical Librarians now in session, to be had almost for the asking. There is no medical college that may not have a librarian and a library. The library and the clinics furnish the motive and material for the study of medical science.

The medical school should be an integral part of the university and feel every throb of educational life. Medical education can not walk alone. It must advance with chemistry, physics, biology, zoology pathology, sociology, and that love of humanity which is the excuse and the motive of all true education.

The smaller schools may almost do without a curriculum and this gives the teacher and the student the greatest possible freedom. Each student should be allowed or better guided to make his own curriculum.

Teachers and students can make a school, and without either one, endowments, buildings, hospitals, books, and paraphernalia are without avail.



## NEGLECTED CLINICAL OPPORTUNITIES IN AMERICAN MEDICAL CENTERS.<sup>1</sup>

By S. A. KNOPP, M.D. (Paris and Bellevue, N. Y.). New York.

*Mr. President and Fellows of the American Academy of Medicine :*

For an ordinary practitioner like myself, not connected with any institution for instruction, to venture to address this distinguished Academy on so important a subject as the clinical teaching of medicine may seem temerity to many of you ; but, while I lay no claims to any experience as a teacher of medicine, I have spent well nigh ten years as a regular medical student in this country and abroad, and I believe I have learned something of the needs of such a student in regard to clinical instruction. I do not intend to imitate the critics who are in the habit of depreciating American institutions to eulogize foreign medical schools. There are a good many of the latter which are far from being perfect, and certainly not any better than some of our own.

What I desire to do is to point out to you, many of whom are representative teachers of the leading colleges in this country, that, notwithstanding the vast progress made in the curriculum of many of our medical schools, there is still an utter inadequacy of clinical instruction for the majority of students. I will show at the same time that this inadequacy is not due to the want of clinical material, but to the neglect to utilize it.

Only the few fortunate victors in the competitive examinations for hospital internship have really the clinical training necessary to make good physicians. These internes constitute a very small minority of that vast army of physicians who annually must take upon themselves the fearful responsibility of treating, medically and surgically, the various ills human flesh is heir to.

Of every 100 medical students, about 10 receive hospital appointments. You will probably tell me that there are any number of post-graduate schools, and you are right. The majority of these schools are really excellent, but their work and usefulness lie in another direction. They instruct the general practitioner who goes to some great medical center every two or three

<sup>1</sup> Read before the American Academy of Medicine, Atlantic City, N. J., June 4, 1900.

years in order to brush up, and they help to educate him in special branches of medicine or surgery.

There is no want of opportunity for post-graduate instruction, and it need not be sought abroad, it can be found in our own country. But what I claim is that there is great want of clinical instruction for the medical student before he becomes a post-graduate. I say this not in criticism of any one school, but of all of them. Yet this state of affairs can be remedied, and to attain this end I beg leave to offer the following suggestions.

There should be, first, a cooperation of all the medical colleges located in one medical center for the purpose of a general and equal utilization of all the clinical material of their city.

Second, every physician and surgeon attached to a subsidized hospital should be appointed as a clinical teacher, independent of college affiliation, and be paid a reasonable fee for his services as instructor to the students.

Third, only such men should be selected for hospital physicians as are well qualified, and who pledge themselves to perform their duties faithfully as clinical teachers.

Fourth, suppression of all the didactic lectures for second-, third-, and fourth-year students during the morning hours, which should be devoted exclusively to clinical work.

Fifth, the obligatory presence of every second-, third-, and fourth-year student in the capacity of senior or junior externe at the clinic, or at the daily hospital visit of his teacher.

Sixth, a record of attendance should be kept by the clinical teacher and of the work done by his externes, to be transmitted periodically to the respective college to which the student may belong. The reports should be expected to count in the annual and final examinations of the students.

As to the manner of selecting the men for the positions of hospital physicians and clinical teachers, customs vary in different countries, states, and even cities. With some medical boards, the politics; with some, the religion; with some, the social standing; with some, the affiliation or non-affiliation with a certain college; and with some, the medical qualification of the candidate—decide whether or not he shall become one of theirs.

In certain European cities, for example in Paris, the position

of visiting hospital physician, surgeon, or obstetrician (*médecin, chirurgien ou accoucheur des hôpitaux*) can be obtained only by a competitive oral and clinical examination covering those respective branches of medicine. The board of examiners is chosen annually by ballot from among the hospital practitioners. This system, though excellent, might meet with some opposition in our American cities, at least at the present time. Therefore, I venture to suggest that, as requirements for hospital physician and clinical teacher, the following qualifications should be necessary: (1) Good standing as a regular and practising physician. (2) One year's experience as interne in a general hospital and one year's service as interne in a special hospital or hospitals. Five years' active work in general practice should be accepted as an equivalent to two years' internship. (3) The approval of the candidate as hospital physician and clinical teacher by the medical board of the hospital in which he desires to work.

Each hospital should have a fixed number of clinical teachers according to the number of beds. These should be at the same time the visiting physicians, surgeons, or obstetricians, with a sufficient number of internes or externes to assure efficient service and good care of the patients.

Wherever there is an important surgical or obstetric service, there should be an arrangement that one of the visiting surgeons or obstetricians should always be within calling distance to aid the internes in case of serious accidents demanding immediate interference. The reproach so often made, that serious operations are performed by young internes without the aid or consent of the visiting surgeon, could then no longer have foundation.

No hospital should be without the necessary bacteriologic and pathologic laboratory equipments, where the teachers and pupils may gather to verify clinical observations or engage in special studies.

A change of service as externe from one hospital to another could be made twice during the second, and three times during the third and fourth college years. Thus each student by the time of his graduation would have served for thirty months as externe in six to eight different hospitals, having actually spent

half of his time during the last three college years at the bedside, in the operating-room, or in the bacteriologic and pathologic laboratories of the hospital. Whenever there is a dispensary attached to the hospital, the material it affords could also be advantageously used for clinical work by the appointed clinical teacher.

To obtain the greatest possible good out of the three years' externship, I would divide the work as follows:

First year as junior externe, five months in the surgical service, five months in the medical service; second year as senior externe, four months in the surgical service, four months in the medical service, and two months in the obstetric service; third year as past senior externe, three months in the eye and ear service, three months in the nose, throat, and skin service, two months in the hospital for contagious diseases of children, and two months in the service for the treatment of diseases of the mind.

The service in medicine would, of course, have to include diseases of children, with the exception of acute contagious diseases. The instructions in diseases of the eye, ear, nose, throat, and skin might be advantageously taught in the large dispensaries, and the experienced dispensary physician should also become a clinical teacher. The three years' clinical curriculum for the externe, divided in the manner I have suggested, should be obligatory for all medical students. It covers only what every general practitioner ought to know. He may specialize himself in after years. While at the college he should learn to know how to treat all diseases which he may be called upon to attend as a general practitioner.

After having given the outlines of my plan, which, of course, only represent a rough scheme, let me substantiate what I have said in regard to the abundance of clinical material in large medical centers, and the neglect to utilize it for clinical instruction. I will cite only New York as an example; but the conditions are virtually the same in all the great medical centers of the United States.

Through the very kind and prompt replies to the letters of inquiry addressed to the superintendents of the hospitals and the secretaries of the three medical schools of the city of New York, I am able to present the following statistics: The number of

medical students during the college year of 1898 and 1899 was: In the medical department of Columbia University, 801; in the medical department of New York University (former University and Bellevue colleges united), 442; in the medical department of Cornell (including matriculates at Ithaca), 241; this makes a total of 1,484.

The following is a list of the 25 general hospitals usually mentioned in the announcements of all three schools as an inducement to medical students to compete in the examinations for internes:

|                               | Daily average number<br>of beds occupied. | Number of internes. | Term of service. | Number of visiting<br>physicians and sur-<br>geons. |
|-------------------------------|-------------------------------------------|---------------------|------------------|-----------------------------------------------------|
| Bellevue Hospital .....       | 760                                       | 24                  | 2 years.         | 32                                                  |
| Beth Israel Hospital .....    | 28                                        | 4                   | 2 years.         | 10                                                  |
| City Hospital .....           | 750                                       | 24                  | 2 years.         | 32                                                  |
| Colored Home and Hospital.... | 240                                       | 2                   | 1 year.          | 4                                                   |
| Columbus Hospital .....       | 80                                        | 3                   | 18 months.       | 8                                                   |
| Fordham Hospital .....        | 40                                        | 4                   | 16 months.       | 8                                                   |
| French Hospital .....         | 60                                        | 3                   | 18 months.       | 6                                                   |
| German Hospital .....         | 180                                       | 6                   | 2 years.         | 24                                                  |
| Gouverneur Hospital .....     | 39                                        | 4                   | 18 months.       | 10                                                  |
| Harlem Hospital .....         | 40                                        | 3                   | 2 years.         | 10                                                  |
| House of Relief .....         | 34                                        | 5                   | 20 months.       | 5                                                   |
| J. Hood Wright Memorial ..... | 50                                        | 4                   | 2 years.         | 6                                                   |
| Lebanon Hospital .....        | 65                                        | 3                   | 12 months.       | 10                                                  |
| McDonough Memorial Hospital   | 12                                        | 0                   | .....            | 7                                                   |
| Mount Sinai Hospital .....    | 206                                       | 6                   | 18 months.       | 10                                                  |
| New York Hospital .....       | 173                                       | 9                   | 18 months.       | 10                                                  |
| Presbyterian Hospital .....   | 188                                       | 8                   | 2 years.         | 7                                                   |
| Roosevelt Hospital .....      | 170                                       | 15                  | 1 year.          | 5                                                   |
| St. Francis' Hospital .....   | 230                                       | 6                   | 1 year.          | 7                                                   |
| St. Mark's Hospital .....     | 65                                        | 3                   | 20 months.       | 10                                                  |
| St. Luke's Hospital .....     | 227                                       | 10                  | 18 months.       | 12                                                  |
| St. Mary's Hospital .....     | 100                                       | 0                   | .....            | 2                                                   |
| St. Vincent's Hospital .....  | 325                                       | 6                   | 18 months.       | 6                                                   |
| Trinity Hospital .....        | 21                                        | 0                   | .....            | 4                                                   |
| Woman's Hospital .....        | 90                                        | 6                   | 18 months.       | 5                                                   |
|                               | 4,173                                     | 158                 |                  |                                                     |

Thus we see that, to nearly 1500 medical students, the three schools can offer only 158 places for internes in general hospitals. Of course there are numerous institutions for the treatment of special diseases, such as cancer hospitals, maternity hospitals, eye and ear hospitals, hospitals for consumptives, and so on; but the internship in these institutions is not what the graduating student desires and needs. He wants above all the clinical training in a general hospital. He reserves the special hospital for some future date; thus, positions in special hospitals are usually sought by graduates of general hospitals, and I understand these latter are always preferred by the managers and visiting physicians of these institutions to the young men fresh from college. To complete my statistics, I will give a list of special hospitals, and the clinical advantages they offer.

|                                                            | Daily average number<br>of beds occupied. | Number of internes. | Term of service. | Number of visiting<br>physicians and sur-<br>geons. |
|------------------------------------------------------------|-------------------------------------------|---------------------|------------------|-----------------------------------------------------|
| Babies' Hospital.....                                      | 35                                        | 0                   | .....            | 2                                                   |
| General Memorial Hospital ....                             | 100                                       | 4                   | 2 years.         | 6                                                   |
| Hospital for the New York<br>Society .....                 | 184                                       | 4                   | 2 years.         | 3                                                   |
| Loomis Sanatorium for Consump-<br>tives (City Branch)..... | 30                                        | 0                   | .....            | 4                                                   |
| Manhattan Eye and Ear Hospital                             | 48                                        | 4                   | 2 years.         | 9                                                   |
| Mothers and Babies' Hospital..                             | 60                                        | 3                   | 1 year.          | 3                                                   |
| New York Eye and Ear Infirmary                             | 50                                        | 5                   | 18 months.       | 23                                                  |
| New York Infirmary for Women<br>and Children .....         | 60                                        | 4                   | 16 months.       | 12                                                  |
| New York Orthopedic Dispen-<br>sary and Hospital.....      | 65                                        | 2                   | 2 years.         | 1                                                   |
| New York Skin and Cancer Hos-<br>pital.....                | 45                                        | 3                   | 18 months.       | 5                                                   |
| Nursery and Child's Hospital ..                            | 85                                        | 3                   | 1 year.          | 4                                                   |
| Seton Hospital.....                                        | 128                                       | 1                   | Indefinite.      | 4                                                   |
| Sloane Maternity Hospital .....                            | 80                                        | 4                   | 3 months.        | 2                                                   |
| St. Joseph's Hospital.....                                 | 350                                       | 1                   | Indefinite.      | 12                                                  |
| Willard Parker Hospital .....                              | 60                                        | 2                   | Indefinite.      | 6                                                   |
| New York Foundling Hospital .                              | 700                                       | 2                   | 1 year.          | 12                                                  |
|                                                            | <hr/> 2,080                               | <hr/> 42            |                  |                                                     |

The number of beds in general hospitals varies in the different institutions from seven to sixty per interne; thus some internes must certainly be overworked, while others would seem to have hardly enough to do. In special hospitals we find even a greater inequality in regard to the division of work. In some there are 10 patients per interne, in some about 50, and among the three hospitals for consumptives, one institution has 350 beds per interne, another 128, and one with 30 beds has no residing medical officer. The New York Foundling Hospital with its 700 beds has but two internes. While I am willing to concede that in a hospital for consumptives there may be no need of quite as many internes as in a hospital of equal size devoted to the treatment of general, acute, or surgical diseases, still I maintain that our knowledge in phthisiology might be materially increased if all these great hospitals for consumptives would offer a number of places for internes where the young men could carry on investigations of the most interesting kind. Tuberculosis is certainly a disease which is prevalent and important enough for such a work, and many of the clinical phases in phthisis pulmonalis will still bear some study and observation, leaving aside the vast field for research which phthisio-therapy still offers to physicians old and young alike. Lastly, the poor consumptive patients might also have a better chance for life, if they would be treated instead of being kept.

You must pardon me for this little divergence from the real subject, but I consider a proper training for the future physician, in the modern ways of preventing and treating consumption, as one of the most essential factors in the solution of the tuberculosis problem. No matter how many sanatoria for tuberculous patients<sup>1</sup> and similar institutions we may eventually have, for a good many years to come the majority of this class of patients will have to be treated at home by the general practitioner, and the better he has been prepared to do this, the greater will be his power to help combat this terrible scourge of the human race.

Why our New York Foundling Hospital, with its 700 beds daily occupied by little waifs and homeless mothers, should have only two internes is a matter difficult to understand when we

<sup>1</sup> See postscriptum.

consider how great the morbidity and mortality are among the class of infants left to the public care.

I have said that in a number of general hospitals the internes are overworked, some having as many as 60 beds to look after. They have little time for laboratory work, and still less for medical reading; yet they are happy. They know they are the favored few. By cramming (pardon this expression, but it is the only one which fits the case) a great deal of theoretical knowledge, these young men were successful in a difficult competitive examination. They worked hard, and they deserve their distinction; and by and by they can put behind their names the proud title of hospital graduate. What becomes of those who fail by a few points, of the many more who could not come up, for one reason or another, for hospital examination, the college authorities do not and cannot care. These young men less favored by fortune must start out to practise as best they can with whatever clinical knowledge they may have obtained during the few hours devoted to section teaching.

Through a better utilization of clinical opportunities in all our American medical centers, all the students could receive a sufficient clinical training by serving three years as hospital externe. That there is room for every one of them I believe I am able to demonstrate. For convenience I will again refer to my New York statistics. They show that in our general hospitals each interne has to look after an average of 30 beds constantly occupied. Now, if this number of patients in each interne's care should be reduced to 20 for medical, and to even less for active surgical services, these young men would still have plenty to do; then at least 210 instead of 158 places in general hospitals would be open for competition to the graduating student, even should the present term of service of from 18 months to two years be continued.

Reducing the term of service in the special hospitals to one year, and adding only one interne for every 50 consumptives and one for about 50 babies in the Foundling Hospital, would give us about 90 additional places. Thus we would have 300 internes, and if each had for his assistants four externes, two seniors, and two juniors, 1200 positions as externe would be open every year.



As has been said, the total number of medical students of the three New York medical colleges was last year 1480. I venture to say that of these not more than 1200 were entitled to hospital privileges; for, as we have said, only the second-, third-, and fourth-year students should be attached to hospital service. But I am inclined to believe that if the system of an obligatory three-years' externship should come in vogue, in a few years the hospital interne, having had already three years' service as externe, would be glad to content himself with one year's service in a general hospital, and devote his second year as interne rather to the work in a special hospital. Thus, by and by, instead of only 210, about 400 positions as interne in general hospitals will be open to the graduates of our New York medical schools. Besides these there are a few hospitals offering positions to internes, of which I could not report for lack of data.

With an obligatory four years' college course, an increased clinical curriculum, and a likely increase of tuition fees, there will hardly be an increase in the number of medical matriculates, and we will probably never have again 400 graduates per year from the three New York schools; on the contrary, there are indications that we will have considerably fewer in coming years. I have learned that the graduating classes for 1901 will be a good deal smaller than were those of 1900.

The prospect that it may be possible in the near future to offer a position as interne in a general hospital for one year to every medical graduate is thus rather bright. The same prospect also holds good for the graduates from other large American medical centers. Wherever the college faculties, the hospital authorities, and the profession can come to an understanding, wherever the interest of the student as the future American physician is placed above all other interests which may concern a faculty or a hospital board, there the medical students will receive the best clinical training. But, in the meantime, let us reorganize our hospital work in all the large centers of medical education by creating a sufficient number of internes and externes, and place over them competent men as clinical teachers.

The duty of the clinical teacher should be, besides the daily talk or conference at the bedside, to give at least one clinical

lecture every week, alternating with the other teachers of the same hospital. The attendance to this clinic should be obligatory for all students attached to this particular service and facultative for the pupils of other clinical teachers. The work of the interne would be what it is now, except that each would be aided by the externes, who in turn would be taught by the interne how to keep a record of the cases, how to examine urine, sputum, etc. The internes could also help the clinical teacher in teaching the students physical examination, and thus prepare themselves to be future hospital physicians and clinical teachers. In the surgical services, the externes should attend to dressing and helping the internes in the work of preparing patients for operation, taking care of instruments, and so on.

The interne, like the externe, should have an obligatory service in medicine or surgery during his first year, but he should have the right to devote his last year to whatever special or other work he should feel the greatest desire or need for.

Before answering the objections which might be raised to my plan, let me call your attention once more to the fact that not only would the externes be benefited thereby, but the interne and clinical teacher as well. The clinical teachers of a hospital could arrange among themselves on what days of the week to lecture, so that all internes and externes might attend.

By teaching, the teacher will learn. He will not go unprepared to deliver a clinical lecture before an audience of medical students from different schools. He will be anxious to make his work as interesting as possible. He will be paid for this work, and it should be his duty to do his best. The interne, instead of eighteen months, will get five years of clinical instruction, three years as externe, and two years as interne. This experience with a number of different clinical teachers can only be of vast benefit to him.

Lastly, the medical student who formerly had to take his clinical teachings in section classes, who rarely had a chance to watch a patient for several weeks in succession, will have had at the end of his three years' service as externe a wide range of clinical experience certainly equal to, if not better than, that which the average interne has now. The externe need no longer feel

inferior to the hospital graduate. He will feel more confident to start out in life, and his future patients will be better off too. He can tell the world that he had three years' hospital training, and feels well prepared to take upon himself the responsibilities of physician or surgeon.

Now, as to the objections: as conscientious physicians let us first see how our patients will fare under such a system. How will they like it? I venture to say they will welcome the change and like it better than section teaching. To be constantly cared for by the same two or three young "doctors" will be far less disagreeable to the patient than to be examined once or twice every week by a class of from 10 to 15 strange young men. The patients will not dread the visit and examination of these few young assistants with whom they become acquainted, as I know they often dread the arrival of the class with the teacher, who at times is not even the physician of the patient.

The increased amount of work will, of course, necessitate a four years' course perhaps of even ten months each, instead of eight or nine, and the increased fees for tuition are likely to deter a number of young men from entering upon a medical career, although in reality there should be a state appropriation for medical schools as there is for other educational institutions. Still I feel that you will all agree with me when I say that, in view of the overabundance of the physicians at the present time, a decrease in the number of medical students would be rather a gain than a loss to the profession.

Another objection which will certainly be raised would come from the duly appointed clinical professors of the respective colleges; they might fear that their vocation would suffer in prestige; far from it. The importance of the chairs of clinical surgery and clinical medicine would not only not suffer from such a system, but their usefulness would be vastly increased.

All the clinical professors would have, of course, a hospital service. The hours of their clinic could be arranged so as not to conflict with the clinics of other teachers, and they would have the honor of having among their hearers not only the pupils of their own schools, but always a good number from other colleges.

The suppression of some of the didactic lectures will not be mourned by any student nor any well-meaning professor. I

believe it is now the general opinion of modern medical educators that there are really but very few subjects in medicine which need to be taught didactically.

The last most serious objection which is likely to be raised is that the more or less numerous medical colleges in each of our great medical centers will never unite to do such harmonious work. The objectors will call my plan impracticable. Nevertheless, Paris, Berlin, and Vienna, the greatest centers of medical learning of the world, have each but one faculty of medicine; and Paris has three times as many medical students as New York.

The union of medical schools has very happily begun in some sections of the United States. We were very near reducing the number of our medical colleges in New York by one, but unfortunate inharmonious conditions created a new school alongside of the two which had united. Notwithstanding this discouraging occurrence, I am rather optimistic for the future, and when so much is at stake as the clinical teaching of the future medical men, I think the schools will have to listen not only to the needs of the student and to the demands of the profession at large, but perhaps also to the state boards which examine physicians before granting them a license to practise. These state boards have certainly done a great deal of good in raising the standard of medical education, but their examinations are, of necessity, all theoretical. They give no guarantee that the candidate has sufficient clinical training. Supposing all state boards should make a demand whereby the evidence of having served three years as hospital externe should be a *sine qua non* for all candidates, it would be a great step toward the clinical training of all men who would hereafter leave our colleges. But I believe that if such a movement as I have endeavored to outline before you should be inaugurated, every one of our important medical schools would be willing to respond to such an essential and useful innovation as a thorough clinical teaching of all their students.

Through an amalgamation of the clinical teaching of all schools in every large city, there may come that glorious time for which we all so earnestly pray: Fewer and better schools, fewer and better educated physicians; one great university with one great

medical faculty in each great medical center. The standard of medical education in our own country would thus be vastly raised, and not only equal that of Europe, but become ultimately superior to that of any country in the world.

*Postscriptum.*—I embrace this opportunity to express through the columns of the Bulletin of the American Academy of Medicine my reasons why I do not use the word "sanitarium" nor the word "tubercular" in their relation to phthisio-therapy or phthisiology.

Contrary to the custom of many English-speaking people, especially in the United States, I call these establishments sanatoria, and not sanatoria. The former (sanatorium) from *sanare*, to heal, gives a better equivalent to the German "Heilanstalt," the word used by the originator of this system (Brehmer). Secondly, the word "sanitarium," from *sanitas*, health, is usually employed to designate a place considered simply as especially healthy—a favorite resort for convalescent patients.

The United States Marine Hospital Service has adopted the word "sanatorium" for its Fort Stanton Hospital for the treatment of consumptive sailors. Thus at least I was assured by Surgeon-general Wyman, on my recent visit to Washington. The Massachusetts State Institution for the Treatment of Consumptives has now changed its former name to sanatorium. Also the Canadians have given preference to the word sanatoria for their institutions of that kind.

The expression "tubercular" seems to me, while not exactly incorrect, not as definite and not so precisely referring to disease produced by Koch's tubercle bacillus as would the word "tuberculous." There are many diseases, particularly of the cutaneous system, which might be called tubercular, because of their external physical manifestations in form of tubercles. It might be well to retain the word "tubercular" for its indiscriminate use in anatomy, dermatology, pathology, and biology, to indicate the existence of a rounded prominence, small protuberance, granular body or other enlargement, but employ the word "tuberculous" exclusively when dealing with subjects appertaining to phthisiology.

## DISCUSSION.

## Dr. DeLancy Rochester, of Buffalo:

This topic of the teaching of medicine, and the association of hospitals with medical colleges is one that I have given some thought to; and the fact that we can in many institutions even where the classes are small or large give proper instruction I think is very plain, if it is taken into consideration that it can be done by the increase in the number of clinical instructors under the head of a given chair. In Buffalo we have a professor of medicine, and an associate professor of medicine. We have two clinical professors of medicine, and eight clinical instructors in medicine. In no one class of the college are there over 100 students. In the senior year the number is about 60 students in one class, so that we are able to handle the students very well in that way and so give to the individual student very excellent clinical training. It seems to me that the simplification of the matter is the increase in clinical instructors, not essentially clinical professors, and relatively young men for these positions.

In regard to the hospitals, and the colleges, and the students, I happen to be associated with four different hospitals in Buffalo and have been on the Committee on Internes in all of them at different times, and we have very great difficulties with the hospital management to increase the number of internes in any of these institutions. Dr. Knopf has suggested that the number of externes be increased very gradually, and that there be externes for three months at a time. He has very well said that this would be of great advantage to the externe, to the interne, and to the clinical instructor; but, how about the patient? That is what the hospital is looking after, and it strikes me that it would be of great disadvantage to the patient, who would not get the proper care if used so tremendously for clinical material as this would imply. I am greatly in favor of using hospital patients for clinical material, and run up against objections quite frequently on that account, but I expect that if we made the number of externes as great as this (looking at it from the hospital) we would be giving too much of the patient to the students or externe. That is to be very carefully considered.

## Dr. L. B. Tuckerman, of Cleveland:

I have listened to the paper of Dr. Holmes with a great deal of pleasure. The same thing which obtains with regard to the medical college obtains with regard to the literary college; given an equally complete plant, and an equally able faculty, the smaller the college the better for the student. For the primary medical training, in the college which has the smaller number of students with equal laboratory facilities, the more the student will get out of his course. When it comes to post-graduate work, and a man knows what he wants and what he does not want, a larger field of clinical material before him would give the better results.

The paper also of Dr. Knopf's was very interesting to me. The student to-day lacks what some of us remember, the riding about with our private

clinical instructor—our preceptor—in his buggy; reading up over night the patients seen the day before, and talking about one patient while we went to the next. I would not give my buggy-side experience with my preceptor in country practice for all the clinical work I saw as a medical student. Medical education should provide for that deficiency. The practical training for emergencies as they occur in actual general practice, cannot be gotten in a hospital.

I was surprised at this revelation of the doctor from New York, from which city we had supposed that medical light shone out on the rest of the country—that in such a medical center there was a hospital containing 350 consumptives with only one interne. This is surprising in face of the fact that in Ohio we have found that the best method of controlling cough is by the intralaryngeal injections; and I would like to know how one interne can give such treatment daily to 350 consumptives.

Dr. Leartus Connor, of Detroit:

In regard to the paper of Dr. Holmes I agree with nearly everything he says (which I don't always) provided he would assure me that the teachers and the managers of each college honestly wanted to train men for their best interests. I know medical colleges in which the teachers and managers benefit at the expense of the students, and damage to the profession and people. This is the evil of colleges and hospitals; and, so long as it exists, it is undesirable to add to their number. We never will get rid of the difficulty until we have men with minds broad, souls big, and bodies clean enough to do the works of men.

With reference to clinical instruction the doctor is right, yet I do not know any place in this country where surgery is really taught, where the student at any time is given an operation to do under the direction of his professor. The surgeons want all the operations for themselves.

Dr. Tuckerman:

I do just this sort of operating myself.

Dr. Connor (continuing):

I am glad to have learned of one surgeon who teaches his students actual surgery. The contact of an honest teacher with an honest student, working in an honest way, apprehending what underlies the foundations of disease, and the application of means for removing these is certainly as much to be desired now as ever. When you find a college in which the professors are acknowledged as doing this you have one to which honest students will come, and a reputation in which every lover of medicine will glory. Other things being equal the small medical college possesses manifest advantages. But if it be wrong in foundation and management, even greater harm will come to the profession because of the facility with which it can be multiplied, and made to reach every cross-road village.

Dr. H. O. Marcy, of Boston:

I rise, not to discuss the papers but to speak of the personality which must be individualized; and as one of our friends has just said, the old buggy

practice is an illustration of it. Agassiz insisted that no teacher should have more than 25 pupils. The greatest of all teachers of soul-life selected only 12 pupils that he might influence them in such a way that the personality should always live in his teaching.

If there is anything I have to emphasize in the teaching of those men who were especially helpful to me, it was the touching of the professor in this way; this special type of teaching, not so much the lessons taught, but the personality.

Mr. Joseph Lister, now so titled and honored, inspired by his new belief, taught us with a vivified personality. In this way, truth lives and perpetuates itself from generation to generation.

Dr. Edward Jackson, of Denver :

As I understand the paper of Dr. Holmes, it is not in advocacy of the further multiplication of smaller colleges. But, the small college exists; it exists in this country in large numbers, and it has fallen under the blight of a fancied inferiority to the great medical colleges of the great centers. I think, even if it took a teacher from a great medical center to point out the fact, the smaller medical college has its great opportunity.

With regard to the increase of medical opportunities, it ought to be more generally recognized that this does not simply mean the increase of the number of cases of disease one sees. In nine cases out of ten it means in a better study of a few cases, and particularly in the years of undergraduate study. It means closer attention to the comparatively few cases under personal supervision. It does not mean the larger number of patients brought within the range of the student's sight.

Dr. Holmes closes :

I knew I was putting on that red cloak whenever I mentioned medical colleges before Dr. Connor, but I was willing to stand the horns because I have dodged them a great many times before and now I must dodge again. He has the unhappy faculty of always imputing some sinister motive to the medical school; and, yet he tells me that we should smile at people, but he never smiles at a medical college, no matter where it is, what doing or what it has done.

I cannot conceive of a medical school with an improper motive. The motive of education is essentially an out-growing motive. It seems to me we can speak of companies corporations, and combinations of one kind, and another with the idea of bringing in, but we can never speak of an educational institution with any other idea except going out. So I would dismiss his criticism in that way.

His second one, however, is harder to answer. He thinks we don't get progress from the smaller medical colleges. If there is any medical school that Dr. Connor would approve of it is a small one. There is a small medical school which in a measure receives his approval, and that is in my mind the medical college which has most of all influenced the promoters of medical education toward better things. It is my belief in looking over the history of the 15 or 20 years that the actual advances in medical education have



been initiated by the smaller medical college; but frequently the larger medical college has demonstrated this advance before the gaze of the world and received what little credit there may come from such an advance.

I am confident that all can see the better training, the better teaching, and better methods by the smaller school, the newer school, and those which have not the reputation which belongs with time and numbers and history. I have myself the greatest confidence in what will be brought about by the smaller medical colleges in bettering medical education.

Dr. Knopf closes:

I thank you all for the kind attention with which you have listened to this lengthy paper. The few criticisms which were made, I believe I am able to reply to. Dr. Rochester spoke of the abuse of patients for clinical material. In answer to this I may say that the system which I endeavored to outline would do away with such abuse. There would be, besides the interne, only two senior and two junior externes to no less than 30 patients. These latter, seeing the same students around them daily, will object much less to be examined by them than by a section class composed of different students every time.

The classic picture drawn for us of the old-time preceptor with his student in his buggy, is very beautiful and romantic, and the older members of the profession have doubtlessly learned much by this intimate relationship between master and pupil. But the average medical student of to-day, and especially the one studying in our large centers of medical education, no longer enjoys this privilege. As a substitute for the preceptor I cannot conceive of anything better than the appointment of clinical teachers to whom only a relatively small number of students will be assigned. It is in his intercourse at the clinic with his teacher and during the *causeries* at the bedside that the student will receive valuable instructions which will remain more indelibly fixed in his mind than the most eloquent phrases of the great professors in the lecture-room. It is by such a system that pleasant relations between master and pupil can be established, and the former be enabled to impress his personality upon his assistants and future confrères.

One of my hearers was greatly surprised by my statement that there was a hospital for consumptives in New York with 350 inmates, and only one interne. It pains me to say that this one interne does not even live in the hospital, but only nearby within calling distance.

In reference to the value of intralaryngeal treatment for the cough in pulmonary phthisis, I wish to say that it would indeed require a large number of assistants should this treatment be uniformly instituted. However, while not depreciating the value of intralaryngeal applications in individual cases, I protest against its use as a universal and routine cough remedy for consumptives. To my mind, the most important of all cough remedies for consumptives is discipline. Tell your patients that they have no business to cough unless they have something to expectorate; tell them that it is just as impolite to cough because their throat tickles as it would be to scratch their heads in public because their scalp happens to itch, and you will be surprised how much less they will cough.

## PSYCHOLOGY AN ESSENTIAL FACTOR IN MEDICAL EDUCATION.<sup>1</sup>

BY WILLIAM JAMES HRRDMAN, M.D., LL.D., Professor of Diseases of the Mind and Nervous System, University of Michigan.

The subject that psychology treats of is mind. A careful systematic study of mind by the best methods that experience and research have devised will alone reveal what mind is, and how it operates.

The mind and body of mortal man in his present state of existence are bound together in an interdependent unity. Physiologic processes of the body determine mental processes and mental processes awaken and modify physiologic processes.

The physician has to do with abnormal man, man whose life processes have in whole or in part lagged behind the average in the evolution of size, strength, or capacity, or once having reached the average standard have departed from it as a result of some harmful influence. The abnormal physiologic effects are inseparable from abnormal psychic effects and vice versa.

The physiologic side of these problems of disease has received and is receiving very careful attention in medical education. It is well recognized that normal anatomy and histology, are essential to a right understanding and interpretation of normal physiology. It is as readily admitted that pathologic processes are but perversions of physiologic processes, and the student is well instructed along these lines. But while it is no less true that the structure of the mind and psychophysiology are branches of study that are essential to the right understanding, and correct dealing with psychopathology, scarcely any attention is given to this subject in a medical curriculum, or in the courses recommended as preparatory to such a curriculum. A careful canvass of the candidates for graduation in our leading medical colleges reveals the fact that not more than two per cent. of them have ever had systematic instruction in psychology. And yet the physician's problems are to a very great extent those of psychopathology and psychotherapy. When I say these are in a great measure the problems of the physician I do not mean of those

<sup>1</sup> Read before the American Academy of Medicine, Atlantic City, June 4, 1900.

physicians only who confine their practice to nervous diseases or psychiatry, I would include also the general practitioner, the surgeon, the specialist in every branch; no one is exempt, for all have to do with the mental aspects of disease.

In every disease where there is a glimmer of normal consciousness remaining in the patient there are mental activities present operating for or against recovery. These the physician who is an experienced and skilful psychologist can muster in his service, and make them potent allies for bringing about a restoration of normal function in both mind and body. Some physicians possess this capacity as a natural endowment, and their success in practice is in a great measure due to it. Intuitively they recognize the mental attitude of the patient, and with abundant resource and adroitness they mold and direct his thought and action so as to bring them into harmony with the physical forces employed with therapeutic aim. This is the native *art* of psychotherapy unaided by the *science*.

If without training in psychology, some, by reason of natural adaptability, are able to do so much in psychotherapy, are we not justified in concluding that scientific training in psychology as preliminary to the practice of the art of psychotherapy would give even greater efficiency to those naturally endowed and provide a better foundation, and a greater intelligence for the cultivation of the art in all?

If there is any one criticism which I would feel justified in making upon the prevailing tendency of the more rational practice of medicine at the present day it would be that it is too materialistic. It devotes its thought and attention too exclusively to the disease and neglects or ignores the man, woman, or child diseased, who are something more than combinations of matter. It forgets that there are elements entering into the symptom complex, other than those whose cause can be brought under the microscope, or caught in the test-tube.

Experimental psychology, the inductive method applied to determine the laws of mental development and action, has already done much and gives promise of accomplishing much more to confirm right methods of education, and to point out the faults in defective methods. The mind of the child has a certain order

of natural evolution. This is to a great extent dependent upon the degree of perfection attained by the sense organs. The raw material for thought reaches the mind through the various sense paths. Theoretically considered that system of education which employs these various channels for the gathering of thought-food in the child, and does so in proportion to their capacity to functionate, giving to each sense its share of duty at the proper time without overburdening it, would seem to be the most rational. This would provide the foundation stones for a broad and stable mental development. But such a plan of education presupposes a knowledge of human embryology, physiology, and psychology, which is as yet possessed by but a few educators although the mass of them are beginning to recognize the importance of such knowledge.

The kindergarten and manual training methods in education are gaining in popularity because the results show that they satisfy the requirements of the human mind to a greater degree than the methods of education hitherto employed. The art has, as is usual, moved in advance of the science. But in order to perfect the art, the science must come to its relief. The physician is called in to repair the damaged minds and bodies which faulty methods of education are constantly turning out. Here as elsewhere in coping with disease the vantage ground he should stand on, the position he should be able to take in order to serve his fellows best, is that of a preventer of disease. It is a sorry and often hopeless task to attempt to make whole that which is already shattered. Much better is it to remove the causes which lead to such destruction. But the physician, though he may feel convinced, as many do, that our present methods of education are hurtful to the bodies of many children, and do not meet the requirements of their minds, yet by reason of his lack of systematic psychologic knowledge he is unable to point out with convincing proof the defects in the system which is responsible for these evil results. On all matters which pertain to the natural and healthful development of the child both in body and mind, the physician should be an educator of educators.

It is to the physician that the parent and society turns for help and direction in caring for the dependent classes, those who

by reason of bodily and mental deficiencies are unable to meet the ordinary requirements of living. Formerly it was thought that our whole duty was fulfilled when we had comfortably housed and clothed these unfortunates. But many children born with some serious physical defects are capable of much mental culture.

Humane communities now recognize a duty to these weak members growing out of their capacity for improvement. Here arise the most difficult problems of education. Not only must the developmental capacities of the normal child be understood by him who attempts to lift these weak ones out of their darkness or advises how it is to be done, but in addition he must be informed as to the manner in which these normal are modified by the abnormal factors peculiar to each case. The fundamental principles of psychology, as well as of pathology are involved in the solution of such problems as these, and the physician must acquire both or lose his prestige. So likewise are questions of public policy with reference to the management of our criminal classes beginning to invade the domain that in times past the physician has regarded as peculiarly his own. Physical defects and moral obliquity are found to be in some manner correlated. The defective brain in its activities is prone to overstep the boundaries of right conduct, and it becomes a question to determine in our courts, and in the management of our charities and corrections where the individual's responsibility begins and where it ends.

The medical education of to-day is not fitting the physician to maintain his authority in handling questions such as these, and yet they are questions upon which he is expected by the community to have well-grounded and correct opinions. Will he occupy this territory which is his birthright, or will he, by neglect and incompetency, leave this productive and fruitful soil for aliens to enter in and possess it?

The laboratory methods of investigation developed by the physiologic psychologists are among the most valuable means for obtaining exact information as to the state of the higher functional activities of the body. By them, standards of sense perception, ideation, and expression are determined; the best

methods of testing these faculties are evolved, and the influence of modifying and disturbing causes demonstrated.

Phenomena of mind which have heretofore been the material for conjecture and speculation are now subjected to impartial and uniform interrogatory by instruments of precision.

While it may on first thought sound absurd to some to talk of weighing an idea, or measuring an imagination, or of making a chemic analysis of an emotion, yet all will admit that the physic and chemic processes which accompany and are inseparable from these purely mental phenomena are capable of closer analysis, and that much of value can be derived from such exact observations upon them. By closer scrutiny of the physical side we approach with sure and firm step nearer to the boundary line which separates the physical from the mental and scatter the clouds and mists that have obscured it.

Such researches as these are not new to the physician who, as a user of drugs and an observer of their action on the human organism, has for all time been a scientific experimenter in the field of pathologic psychology. But pathologic psychology has for its correct interpretation been long in need of standards of physiologic psychology from which to measure the degrees of departure from the normal. Such standards the physiologic psychologists, by the use of instruments of precision, are now seeking to establish, and such researches as they are engaged in have already increased the efficiency of the physician's methods of diagnosis in a wide range of diseases, but especially in such as hysteria, epilepsy, chorea, amnesia, hypnosis, and the various insanities, diseases in which the characteristic symptoms point to disorder in the borderland where the physical and mental forces have their interchange. It is only by knowing what is possible to be known with certainty regarding the causation and evolution of these disorders involving the mental faculties that any real progress can be made in their amelioration or cure. Rational therapeutics must wait until psychophysiologic and psychopathology have made its way plain.

The diseases which have their origin in this territory where mind and body are mysteriously united have by reason of the darkness that has hidden them from our view in their inception

and infancy loaned themselves readily to support the claims of the ignorant, the enthusiast, or the impostor who professes to heal the sick by means of some occult or supernatural power. Medicine has always had these parasites in one or another form—perhaps it always will. But as the science of medicine advances they are compelled to shift their ground as rational demonstration, and methods of treatment take possession of larger areas.

The most effectual way to destroy a parasite is to cut off its food supply. The most flourishing impositions under the various titles of *mind healing*, *faith cure*, and *Christian science* that to-day are filling the minds of the afflicted with delusive hopes draw their support from the prevailing ignorance of the laws of psychic phenomena.

The physician himself is mainly responsible for the continuance of this ignorance and the false conceptions engendered by it since the vast majority of those who have joined the ranks of these deluded companies have been his patients, have contributed largely to his income and have made prolonged trial of his remedies and advice. He has had the opportunity to apply the proper remedies, to cultivate the soil with a rational husbandry that would leave no ground unoccupied in which the sophistries of the mental healer could take root. But he is either impotent, or disdains to make use of the necessary and only means by which the mind can be brought within normal bounds.

The physician's failure in so many instances must be attributed to the fact that he has sought by material means, by surgery, and by drugs :

"To minister to a mind diseased" and thus "raze out the written troubles of the brain."

It is not by such agencies as these that he can "cleanse the stuffed bosom of that perilous stuff which weighs upon the heart." The misery which seeks relief in the physician's office is no less genuine or less in need of his ministrations because its source lies in the mind rather than in the body. Nor will the physician's denunciation, and ridicule directed against those who, by some species of quackery, effect a cure where he has failed, relieve him from the ignominy of that failure. Am I

not right in saying that the explanation of such failures, and they are of daily occurrence, lies, in part, in the fact that the physician is not, by training, fitted to cope with disease when its causes and its cure lie without the realm of purely physical processes?

The patient will get the benefit of his physician's learning and skill whenever it can be turned to account in relieving his maladies. If the physician is one who understands the correlation between the physiologic and the psychic forces; if he is prepared to give some rational explanation of the disordered state of his patient when the psychic symptoms are most prominent, and if coupled with this explanation, he is prepared to suggest a plan for relief and inspire the patient and the patient's friends with something of the same hope and confidence in him and in his methods that the efforts of the average Christian scientist is seen to awaken in his followers, then and not till then, will he retain the prestige which should be rightfully his. Not till then will he cease to be a witness to the humiliating spectacle of having hundreds and thousands who have applied to him for relief leave his doors in no manner benefited only to get the needed cure at the hands of some one whose pretensions are based on error and absurdities but whose method contains that one element of truth, and the practical application of it which the physician failed to recognize and to use.

#### DISCUSSION.

Dr. Elmer Lee, of New York :

The paper has pleased me greatly. It has interested me very much. It is along the line of my own observations and, upon which some published words of my own have been set forth.

The fact that there is a mental state in the practice of medicine is too little understood, and too seldom successfully used. As an inquirer, sometimes I am taken into unusual places to get information. Recently at the invitation or suggestion of an enthusiast on Christian Science, I attended an enormous meeting in Brooklyn, of persons assembled to hear the subject of Christian Science expounded. The claims which they make, and which appeal so strongly to their audiences seem not to be far from being correct, judged by the review of the subject of Dr. Herdman's paper. They state to their audiences that the physicians are misleading and misinformed, and, in their misinformation they do not successfully bring back health to those who are



sick, and as a consequence, the laity are obliged to take up and substitute for the defective methods of the medical profession, their own methods.

It is my observation that we as physicians do not enjoy the success to which we are entitled, by the fact of neglecting these helpful psychic influences, and using too much the purely physical methods as the main hold in the treatment of the sick.

The force of Christian Science is a tremendous one. In New York it is accompanied by great resources in the way of money. They are just completing a handsome temple costing \$500,000. It is a movement which we as physicians must recognize, and while I am sure they are in error, they certainly enjoy a great popularity and are doing a great deal in the ways of treating persons whom physicians are not able to hold as patients. I think it is timely that Dr. Herdman should call attention to the value of these psychic influences in leading our patients to a restoration of their health.

It is not any purpose of mine to indorse "Christian Science" for after a study of their church and its "healers," I find no occasion for its existence—unless it be to stir the medical profession to a higher and better performance of duty. Our old time drugging methods are out-of-date, and it is time to awake to the fact that the lay organizations are doing much of the work of the physician.

Dr. S. A. Knopf, of New York :

In reference to the note of alarm sounded by the speaker in regard to Christian Science as a movement of danger to the physician and to the public, I wish to say a word of comfort. Christian Science is a fad. All fads have their day, their rise and fall, and I am convinced that ere long Christian Science will be where it belongs—in oblivion. This, however, should not prevent us from studying what little germ of truth there may be in this strange movement, which might be more justly called in the graphic language of Prof. Jacobi "Lack of Christian Science" than Christian Science.

I was delighted to listen to the paper just read and the importance attached to psychology and hypnotism in regard to medicine. Hypnotism is certainly a therapeutic agent. It has been my good fortune to witness, in the clinics of the late Prof. Charcot, this strange phenomenon applied as a therapeutic agent in various forms of functional nervous disorders. The result certainly seemed to justify its application in the hands of the trained physician. There should be a law prohibiting the use of hypnotism by any but physicians, and it should no longer be left in the hands of the quack. Therefore, I would strongly recommend that the teaching of hypnotism should be included in the curriculum of all our medical schools.

Dr. Leartus Connor, of Detroit :

Dr. Herdman makes it clear that what he calls psychology is simply refined physiologic and pathologic processes. We only reach mind and heart through the body. We only give operation to thoughts or emotions by physical activities. What is called psychology is simply an extension of

our ordinary studies. That there is something beyond those studies we all believe; that is a matter of faith, and not of science. There is a distinction between the two, very definite and clear. Most of us depend on faith more than science in many directions. Medical history teaches that moral and spiritual phenomena have always been used as remedial agents. The difference between ourselves and those who pursue the matter in this other way is largely one of degree. The others have faith where there is nothing to have faith in; they pretend to have knowledge where no knowledge exists; they claim to do that which is utterly impossible. For instance, last week a man came to me who had his eye punctured at the sclero-corneal junction, making a wound one-third of the eyeball. The crystalline lens, choroid, and retina all lay on the outside. The wound was dressed and the man told that the eye should be enucleated. He said he would see about that, and so ended my connection with the case. The next day in one of our daily papers I read of this man having gone to a leading high priest of Christian Science who told him that he had better go to a surgeon, but if he stayed she would fix the eye all right. She didn't look at his eye, but he was assured that he would regain his sight.

Fraud pure and simple has nothing to do with psychology. We are interested only in the amount of good which lies back of this, the persuasion of patients to believe something. The best that a doctor can do for his patient is to persuade him that he can do something to ameliorate his condition. We are successes if we can do that; failures if we cannot. I suspect there comes an unknown factor outside of our science which helps some which others do not possess. How we shall get it if we do not inherit it I do not know. If Dr. Herdman can throw light upon it I shall be much obliged. I am assured that the doctor has made no mistake in emphasizing the importance of controlling our patients' beliefs in our own selves, and in the art which we represent.

Dr. Herdman closes :

The very fact that there are over 200,000 people at the present time in the United States who entertain one peculiar belief, and who have tried the physician and think they have found him wanting, and have left him for a Christian Scientist shows that the physician does not meet all the needs of the human mind in reference to the matter of disease and cure. I claim that this is largely due to the physician ignoring one side of the patient's needs—the mental side. He has been looking to the material side too exclusively and disregarding the mental side because he does not know enough about it. He does not feel prepared to cope with the problems that are presented on that side because he has not had the training which fits him to deal with that phase of human nature. I think the majority will agree with this.

## A FEW NOTES CONCERNING THE RELATION OF THE ACADEMIC TO THE MEDICAL COURSE.<sup>1</sup>

BY HOWARD F. HANSELL, M.D., Philadelphia, Pa.

The recent correspondence published in the *Philadelphia Medical Journal*, and commented on editorially by other journals, has given food for reflection to men interested in teaching. The problem is a complex one involving the interests of the state, of the schools, and of the individual, and ought not to be dismissed without serious consideration. The discussion, as I understand it, is whether the collegiate course may be so directed that the studies of the third and fourth years of the academic course shall include the fundamentals of medical science in order that the combined period of study in the academic and medical schools, shall not be longer than seven years, and whether interpretation by the Pennsylvania State Medical Board that the medical student shall devote four years to the exclusive study of medicine shall be accepted as meaning that no other study than medicine shall be undertaken, and that the student shall be debarred from following any other pursuit.

*First, the State.*—The welfare of a community depends to no inconsiderable extent upon the intelligence and dignity of the practitioners of medicine in that community, both in the value of their services from their own standpoint, and the estimate that is put upon their capabilities by the laity. It must be conceded that the status of any profession depends upon two factors; namely, the education, the experience, the ability, and the honesty of its members, and the intellectual standing of the society by which they are surrounded. The physician is largely a creature of environment. His development is in distinct relation to the character of the demands upon his mental resources. Association with men of equal or superior mentality affords a stimulation to his own mental energies that he cannot afford to neglect. Happy is he whom fate has given the opportunity to live and work in the atmosphere of a college town. Unless he would fall back and be forgotten he must keep the rust from his own mind by friction with the minds of his colleagues.

<sup>1</sup> Read by title before the American Academy of Medicine, Atlantic City, June 4, 1900.

Moreover, it is not enough that a man's intellectual power shall be respected, but that honesty, industry, and good motives shall be appreciated. This of necessity means that his neighbors' acts and thoughts shall be stimulated by the highest standards of character. On the other hand, so far as any practical financial results are concerned or any other gain, excepting the man's enjoyment in his own resources and satisfaction in books and learning for their own sake, the educated and mentally endowed man is lost in a community whose highest thought is the weather or the crops. His talents are not only not appreciated, but he is less successful in his treatment and makes less headway into the confidences of his patients than a man whose tastes and inclinations are on no higher plane. The latter can enter more nearly into their mental needs, and is better capable of extending to them the sympathies they demand than he whose thoughts and ideals concern questions of graver importance. The financial remunerations of the practice of medicine in ignorant communities are so exceedingly limited that they offer no adequate return for the investment of any considerable amount of money, or for a number of years spent in the preparation for the practice of medicine.

The state as a dispenser of charity is interested materially in this question. From one to two million dollars are voted every second year for the support of hospitals and medical schools in the state of Pennsylvania. Money must be expended for the purpose of supporting the indigent poor. On what ground appropriations are made for the support of purely business institutions is not perfectly clear, but medical institutions seem to me to be more deserving of the charity of legislators than other institutions of learning, because the state is directly interested in furnishing to its population the best educated physicians in order that the health of its people may be safely guarded, their working hours brought to the maximum, and the duration of life increased. The revenue comes from the people and thus indirectly a part of it is returned to the people. Yet, notwithstanding large sums that are expended yearly in public school education, in well equipped and numerous medical schools, distinguished schools of law and theology, the ignorance and superstition of the mass of the people is simply incredulous. "The

people like to be humbugged" said Barnum, and no truer statement was ever made. In some communities the educated physician earns and collects less money in the year than the advertiser, and quack, and worse yet, the Indian herb doctor and the powwow doctor have a standing superior to that of the regular physician. If the patient gets well it is due to the witch doctor; if the patient dies it is the fault of the regular practitioner. The only remedy for this deplorable state of affairs is in the education of the people.

*Second, Schools.*—The modern collegiate course in the academic schools is progressive and designed to meet the needs of the student's future. The courses of twenty years ago were mainly classical and dealt in large measure with the study of ancient languages and the history of ancient peoples. The elective courses were few. Four years' study had as its aim the laying of the foundation for future work, and the training of the mind that the later elective and professional study could be more easily grasped and retained. Thus, the students in the full classical course far outnumbered those of the elective or professional courses. The tendency in the colleges to-day is not only to prepare the student for his life's work, but also to initiate him into it by pursuing studies that are directly preliminary. The various needs of the student are recognized so that the studies and the time devoted to them are regulated in accordance with the inclination of the student and with their bearing upon his career. In medical schools the tendency to specialism has not been recognized excepting in polyclinic courses and we believe that this generalization is wise. In order for a man to become a successful specialist it is essential that his ground work shall be comprehensive and thorough. Specialism in medicine is as often a matter of circumstance as of election and decided by his opportunities after graduation. With the advance in medicine, that is truly astonishing, the field to be covered by the student is reaching enormous proportions yet the different branches of medicine are so closely allied that one cannot hope to be a successful practitioner if one is not well grounded in them all. The recent graduate whose ambition is to become a well informed member of his profession is not satisfied with the theoretic teaching of the med-

ical school however long its course, but desires to supplement it by practical instruction and experience as an interne in a hospital or failing in this avails himself of post-graduate instruction. The necessity for instruction in foreign clinics has passed away since one can find in America equal opportunities to those abroad. Therefore it would seem to us that Professor Keen was right when he recommended to the Medical Board of the State of Pennsylvania that a shorter term in medical school should be required of a graduate of an academic school than of the non-graduate. The man who has left the plow or the workshop to study medicine is certainly not as well equipped mentally as one who has spent his early life in training his mind preparatory to the study of medicine.

Again, should the four years required in most medical schools be given up to the exclusive study of medicine, worthy men would be debarred from entering upon the course. We have not found that the students whose parents were able to support them during their collegiate course have proved to be the best students or best practitioners. On the contrary the qualities, character, and motives that stimulated a man to study medicine under adverse conditions are often those which insure success afterwards.

*Third, The Individual.*—It may be argued that the individual can have nothing to say as to the method of study or the time required in the preparation for the practice of medicine, and that these matters have been arranged for him by teachers and associations of teachers, yet individuality is a greater factor in the success or failure of the medical man than the state or the school. Less time and effort on the part of teacher and student are demanded to impress new truths upon the mind prepared to receive and retain them than upon the uncultivated mind, and more than the impressionability is the habit of thought, and reason, and memory developed and nurtured by the preliminary years of study.

The final reason that should justify a youth in choosing the practice of medicine as his life's work is adaptability. Circumstances, environment, pecuniary resources, social position, influence are useless adjuncts unless love of study, a true sense of

one's duty to humanity, a willingness to sacrifice self and an inclination, not for the emoluments, but for the life itself, guide him into a medical career in preference to all others. With energy, perseverance, and application, such qualities are bound to lead to success and without them, failure is certain. These self-evident truths border on platitudes and yet a little consideration will show that their mention is indispensable to this part of my subject. Unless the student is actuated by the highest motives, unless he is stimulated by a deep love of his profession and supported by untiring energy he had better follow another pursuit but with these essentials the choice of a school is a matter of minor importance. The responsibility lies with himself and not with the school.

The whole matter may be summed up in one question. Is the academic course an advisable preliminary to the medical course? There can hardly be more than one answer, decidedly yes. And yet the strict adherents of the medical law of Pennsylvania inadvertently and indirectly discourage the former by placing the non-graduate on an equal footing with the graduate. The patent advantages of a trained and cultivated mind are discounted or discredited by not according to the graduate advanced standing consistent with his attainments.

In conclusion I will quote briefly a few expressions of opinion from teachers who have stated their views in correspondence to the *Philadelphia Medical Journal*:

Dr. M. B. Tinker: "Lack of suitable preliminary training has done more than any other factor to keep the standard of scientific medicine in America so low as to make it the butt for ridicule by foreigners."

Prof. Isaac Sharpless: "At a meeting of college presidents of Pennsylvania, Harrisburg, January 12, it was unanimously adopted that the Medical Council of the State of Pennsylvania be requested so to construe the law and their own decisions that graduates of reputable colleges be eligible for examination by the council after three years of study in a medical college provided that work practically equivalent to the first year of our best medical colleges be done in the undergraduate course.

"It is our united judgment that the admission of college grad-

uates into the second year of the medical course has never lowered this standard, and we believe that the recent action of the council will discourage the acquisition of a liberal education prior to technical work."

Dr. George G. Hopkins: "Medical education has become top-heavy from too much attention being given to the superstructure and not enough to the foundation." . . . "Medical colleges usually put a premium on illiteracy since the college-bred man has always been at a disadvantage in those institutions." . . . "The profession is in need of men thoroughly grounded in academic institutes." He would go still farther and advocate that the holding of a college degree be a necessary qualification for the study of medicine.

Dr. James Tyson: "I believe firmly that with the medical curriculum as at present arranged in the better class of medical schools a graduate who has received the A.B. or B.S. degree of a reputable college, and has included in his course the scientific studies which have heretofore been required and has spent three years in one of the medical schools of the grade mentioned, will make a more accomplished physician, a physician more likely to pursue a successful scientific career as well as be a more acceptable visitor to his patients than one who spends four years in the medical school without such preliminary training. I believe the medical council has done the best it could up to the present time and it was in an effort to do better that it made the last mistake in discrimination against the best class of students—the college men."

Finally, at a meeting of the Philadelphia County Medical Society, April 25th, a resolution was introduced and adopted providing that the representatives of the colleges and medical schools should confer in reference to the matter of studies introductory to medicine, and that the medical council should reconsider the recent ruling of the medical council providing that four years must be devoted exclusively to the study of medicine and that college graduates should be given credit for studies in embryology, anatomy, botany, etc.



## SOME EXPERIENCES OF A VOLUNTEER SURGEON IN THE PHILIPPINES.<sup>1</sup>

BY HARRY PARKS RITCHIE, A. B., M. D., Late Captain and Assistant Surgeon, 13th Regiment, Minnesota V. I., St. Paul, Minn.

Medicine and surgery in the tropics, especially in connection with military operations of the late war with Spain and the insurrection of the Philippinos, has been a theme for many writers of the highest scientific and literary attainments, and it would be presuming in me to attempt a so-called original article upon these diseases, to criticise the actions of different military authorities or lay down plans for future procedure. It seems more becoming to present to you a general paper, and leave to your discussion the equally important question of the precise nature and treatment of disease.

All are acquainted with the policy of our government in the preparation for military emergencies. For years the small size of our standing army, and the economical basis upon which it was maintained, was a source of pride. It was our boast that the greatest army in the world could be quickly raised from the organization of the National Guard, and by the enlistment of the patriotic sons of America. The emergency arose that an army should be mustered, equipped, drilled, disciplined, and put in the field at short notice, and we who were a part of that movement stand pledged to the support of an army of a strength commensurate with the size of our country and its position among the nations of the earth, and thus obviate a repetition of such an experience as ours. The 13th Minnesota Volunteer Infantry was assembled at the State Fair Grounds, April 30th, was mustered in and in 19 days was transported to San Francisco. Here we observed the extreme pressure brought to bear upon the quartermaster and commissary departments, and such were the feverish attempts at organization that the medical corps was prone to think that its necessities were least considered.

The transportation quartermaster was confronted with an entirely new problem: Transport service. Suffice it to say that we found much to criticize on the outward trip, where the

<sup>1</sup> Read before the American Academy of Medicine, Atlantic City, June 4, 1900.

crowded conditions, the lack of ventilation of the berth decks, the seemingly inexcusable lack of cooking facilities, the meager hospital accommodations, and many other discomforts, caused much dissatisfaction and complaint. The descriptions when written and embellished with a tinge of nostalgia seemed to friends and kinsfolk at home as an outrage, shame, and disgrace. That these privations were unnecessary was fully demonstrated when, 12 months afterwards, the regiment boarded the transport Sheridan for the home voyage. In the meantime every important question relative to the care and comfort of the troops had been considered.

Just 14 weeks to a day, from the date of muster in, this regiment of young men recruited in the cities of St. Paul and Minneapolis, taken from homes, offices, and the usual walks of life, and without more military training than that the nucleus belonged to the National Guard, was organized and transported 10,000 miles over land and sea, placed in the advance in the Battle of Manila, surmounted all obstacles and carried the stars and stripes into the city.

I do not mean to claim that this record was peculiar to the 13th Minn. but it is given simply as an example of the experiences of the first soldiers sent to the Philippines. Yet in the fact that the 8th Army Corps was pushed and hurried to the support of Dewey, lay, I am sure, the explanation of the small sick report—small in comparison to the regiments camped for long periods of time in the United States.

After the six weeks' confinement upon the vessel, the City of Para, we arrived in the Bay of Cavité with 12 cases of typhoid, and I doubt not, had the regiment remained long enough on this transport, that an epidemic would have resulted, because to our certain knowledge the boat was infected for three months afterward. The first cases occurring at Camp Dewey were unusually severe, due to the fact of the sudden change from the close quarters of the transport, to the great physical labors in landing stores, to the humidity of the climate, to the intense eagerness of the men to do duty long after they ought to have been invalided, and to the inability of the small corps of surgeons to give attention to the numerous ailments.

The hospitals were in the construction stage; ice could be obtained only from the limited supply on the transports; hospital stores were delayed in transfer from ship to camp, all of which tended to increase the severity of the disease, and placed a great handicap upon the surgeons in charge. The most common difficulty was the necessity of substitution in the matter of drugs, some of which were sure to be wanting when most needed, and were not obtainable under the pressure of circumstances until the next requisition was honored.

Fevers and dysentery were the prevailing diseases first met with and so continued until after the reconstruction of the city. Manila, at the time of our entrance, was in a deplorable condition, having been without running water for a period of two months. The latrines were filled and no attempt made to clean them; the streets littered and foul-smelling. Everywhere was disorganization, robberies occurring, and murders being committed. The conception of plans for future action by the superior officers, and the execution of them by the regimental officers, outpost and patrol duty by the men, made it a busy and exacting time.

It is most unfortunate that so many of our American youth received their first impressions of Manila under the unfavorable circumstances of war. Manila is a habitable city and can be made most beautiful. Although unfortunately located, it is because commerce demands it. It is unhappily situated from a sanitary standpoint, because its land has been reclaimed from the swampy lowlands of the seashore, cut by numerous canals and by the great Pasig river, all of which are affected by the tide. This fact necessitates surface drainage, while the canals are the receptacle of all forms of waste, and are fruitful carriers of disease. A system of sewerage was attempted but without success. These conditions present but few chances for improvement, as one of the sanitary officers very tersely expressed it, "The only way to help matters was to burn the city and build it in some other locality."

The water is obtained from the Mariquina river, which flows from the mountains some 10 miles from the city. It is pure and clear, but transmission through the unclean drains

made it anything but acceptable. Inland, however, we saw many beautiful towns which with modern improvements would be ideal habitations. The climate of the Philippine Islands is pleasant, and although there are many gradations, it is tropical. As with all such climates there is the dry and the wet season, the latter during the months of June, July, August, and September, while the months of December, January, and February are most delightful, with evenings cool, and the nights reaching a temperature when a blanket is most comfortable.

The islands being volcanic, there are many highlands where the temperature runs no higher than 75°. With improved means of transportation these places will be accessible. The Pasig river is in many places a miniature Hudson, and navigable for its entire length from Manila to the Great Laguna de Bay. Upon the shores of this lake are many beautifully situated towns, in some of which are natural hot springs, a place for sanitariums.

The campaigns in the interior revealed a country of great fertility which everywhere showed signs of cultivation. The towns contained beautiful buildings, cathedrals of pretentious architecture, and homes decorated with exceptional taste.

The intestinal diseases were most common and among the histories in my possession of 602 cases I find 432 of this nature. The causes are manifold. The simple diarrheas may find explanation in the army ration, not so much in the different components as in the preparation, serving, and lack of variety of the food. We have heard a great deal of criticism upon the army ration. It has undoubtedly caused a great deal of distress from dyspepsia and is the starting-point of the diarrheas. In the field it becomes a most serious question. "Doctor, I simply cannot eat the food" is a story we have often heard. We know that the frying pan is an abomination, yet it seems to be the only practical means of cooking. I believe that the preparation and serving of the food is most important, and the recent legislation providing for the enlistment of permanent cooks will be attended with beneficent results. We know that the present ration has been made the subject of numerous intelligent investigations and it would be hard to suggest an improvement.

The diarrheas were the bane of the regimental surgeon, and

the responsibility placed upon him in the selection of hospital cases was very great. It was necessary that he be the middle-man between the men and the hospital to prevent the crowding of those institutions with minor cases, and at the same time give just and fair consideration to the applicant. Dysentery in my short experience was the most dreaded disease, not so much for the severity of the acute attacks, and immediate mortality, but because of the tendency to become chronic. It was almost with despair and shame that we saw these men day after day with the same story of frequent discharges, distressing flatulence, anorexia, griping, tenesmus, and general lassitude, and affording them only temporary relief. These were the cases invalided home, and while many recovered on the ocean trip, others still suffer from a continuation of these symptoms. Since returning home I have known of the deaths of seven men from this disease. In one case I demonstrated the ameba. This organism is a common cause of the disease. The Johns Hopkins commission have demonstrated a bacillus.

Typhoid fever is the most fatal to the foreigner during the first year of residence. It was imported, but has also been present on the islands many years although for a long time unrecognized. Manson says, that the idea of malaria was so dominant that when an ulcer of the ilium was found it was considered a complication of malarial fever.

There must be some process of immunization among the natives as we see them living in squalid huts slightly raised above the ground saturated with the slops of the kitchen, and the discharges of the body, and which would seem an ideal culture media for the bacillus typhosis. The common use of wells all over the country, would seem to enhance the possibilities of an epidemic.

The abdominal bandage was warmly urged as a prophylaxis against intestinal troubles, but to the soldier on active duty in the field it was impracticable as it is a fruitful source of prickly heat. Personally I never wore a binder during my whole stay on the island and was never ill with intestinal trouble. There are many foreigners of long residence who take little or no precautions, who even commit indiscretions in eating and drinking without suffering. One's knowledge of his own physical pecul-

iarities must lead him to select what is best both in his habilaments and articles of diet.

The idea of malarial fever was so dominant that at first every fever was considered as such, until proved otherwise. It was very difficult clinically to diagnose remittent malarial, from typhoid fever, as the former often presented an entire range of typhoid symptoms. A concurrent diarrhea may lead one to a primary diagnosis of dysentery. But at no time was malarial fever so severe as the cases in Cuba and with the cachexia and general prostration of the troops in the West Indies, we had no experience, until those men were detailed to the Philippines. The quotidian and tertian forms are common, and the pernicious type is present in limited districts.

What I think is most creditable to the medical men of the 8th Army Corps is the management of smallpox, and the results are a most convincing proof of the value of vaccination and isolation. Smallpox in the spring months was epidemic. The natives regard it as lightly as we do measles. I found two cases in the vesicular stage of the eruption, amidst a group of 200 natives. The washerwoman of one of our companies while nursing her four months' old baby, who was in the eruptive stage, was washing the clothing of our men. No regiment in the island could compare with the 13th Minnesota in the matter of exposure to this disease. The men, by reason of seven months' provost guard duty during the reorganization stage of the city, were brought in closest contact with it time and again. We lost 11 men from smallpox. Major Frank S. Bourne, with his corps of native physicians, started a crusade which ended in practically stamping out the dreaded scourge.

The virus was obtained from Saigon in sealed tubes, also made in Manila from the caribou or water buffalo. The latter was most satisfactory.

I have visited the hospital of St. Lazarus, and have seen the lepers, several of whom I had had arrested and sent there, shortly after our occupation. These outcasts had escaped and many were found by our patrols begging in the streets. Undoubtedly there is much leprosy upon the islands and this problem demands the earnest attention of the authorities.

Beri Beri occurred only among the natives, and consequently we saw but little of it. Venereal diseases were common, but much less syphilis than is generally understood to be present. A particularly infectious chancroid caused much trouble because of lymphatic involvement. Often the entire chain of inguinal glands was enlarged. Immediate enucleation was early practised but so many wounds refused to heal by first intention that pressure and counter-irritation were tried with better results. Dhobie itch is no respecter of station or condition and it seemed that no one escaped the three weeks of torture that it produced.

It was my good fortune, as I look upon it retrospectively, to have had almost four months continuous service in the field, watching the maneuvers of an army, seeing the practical operation of the great questions of clothing and feeding such an army, its transportation and communication. Almost entire dependence was placed upon the native caribou or water buffalo, a beast of great strength, and faithful to the last degree.

While in the foothills of the mountains the streams ran in beds, so deep that assistance to the caribou was necessary. In the intense heat the men were stripped to the waist, and by means of ropes would drag caribou, cart, and baggage up the inclines. This was the greatest physical labor and it was with wonder that we saw the amount of exertion the human body is capable. From this occupation the men returned to the ranks to trudge along with 60 pounds of rifle and cartridges. Yet all of this was forgotten in the excitement of an engagement, when the tired and exhausted body would rise to almost any emergency. Often such a day was begun with a bit of hardtack, and a pint of clear coffee sweetened with brown sugar. At night the shelter tents were pitched, and the men lay down with no protection from the ground but the poncho, and were thankful if no rains came to add to their discomfort.

Our medical organization consisted of a surgeon, a steward, and two hospital corps men for each battalion. If the number was depleted there was no reserve to draw upon. Each company was supplied with a litter and two Chinese litter bearers. Our medical supplies were contained in medical and surgical cases which are compactly and neatly arranged. Sick call occurred

at any time of the day and usually after all of the work had been done. Sometimes the long string of applicants were treated by the light of the candle, again in the prostrating heat of the noon-day sun. Along the march it was found necessary to carry medicines as some unfortunate was sure to need treatment. Our experience has proved that the clothing of the feet and head were most essential, as the conditions most common were macerated feet and heat exhaustions with accompanying headaches.

During these hot days with the most intense physical labor I saw no sunstrokes. Many men would fall out along the march with flushed face, suffused eyes and dull headaches, but would soon recover in the shade of some tree, with the aid of a liberal dose of aromatic spirits of ammonia. The effect of the heat manifested itself in gradual enervation which may be best described by the expression so commonly used "done up." It was a general loss of nervous tone, and there was developed a fear of the sun's rays.

The feet gave much trouble from blisters and infected sores. I have often tried to determine who was the greater hero, the man who stands on the breastworks, waves his sword and says "come on boys" or the poor fellow who stubs along the dusty march with such conditions of the feet.

The first aid bandage was given to the hospital corps men and the non-commissioned officers of the line who were instructed in its use. This compact package is the greatest advance of any of the surgical devices, and by its prompt and intelligent use the subsequent results in the treatment of wounds have been most satisfactory. It was not entirely to our own men that its beneficence was demonstrated but to the Philipinos, many of whom fell into our hands. Their wounds were usually frightful, as the Springfield bullet does great damage, and there is no mistaking a wound caused by this bullet from that of a Mauser or a Krag-Jorgensen.

A brigade hospital was established wherever a large town was occupied, and those who were unable to proceed, were there cared for until such a time as they could be forwarded to Manila. Under pressure communication was prompt, as one of our majors was shot through the head at 2 o'clock in the afternoon, and was



on the operating table at the 1st Reserve in Manila by 12 o'clock that night having been carried 35 miles.

After the campaign in the North, the regiment returned to the drudgery of patrol and guard duty along the railroad track from Manila to Malolos. There was no longer the excitement of actual warfare, nothing but the daily routine. During the rainy season the whole of the lowlands are inundated. This is necessary for the cultivation of rice. The rivers overflow and it is a common sight to see natives fishing in the culverts which run to the side of the railroad track. Under such conditions of exposure it was no uncommon event to send five or six men daily into the hospitals with fevers and diarrheas.

The government gave 15 cents daily per man for extra foods for those sick in quarters, and although this was but a small income for the expense involved we were enabled to maintain regimental hospitals where such foods could be given. This was a great boon for such cases not sick enough to be sent to the general hospitals. Yet with all these experiences, and after 18 months' service the regiment returned home having lost but 47 men from gun-shot wounds and diseases out of a full regiment of 1,300 men. Of this number 11 died of small-pox, and 14 from typhoid fever. Of course these men were selected from a great number because of their physical endowments, but considering all this I think that we may congratulate ourselves that the mortality is much less than in many regiments which remained on their native soil.

We have been asked many times upon the desirability of Manila as a location for an American physician, but are still constrained to discourage any who may desire to make the attempt. The native is not educated to the use of medicine and surgery, and he is impecunious. The population of Manila is heterogeneous and transient; the people have physicians of their own nationality in whom they have confidence. Unless a surgeon has a commission or a contract his success in civilian practice is very doubtful.

While in San Francisco great trouble was encountered in forming the hospital corps, because the regulations placed this organization in the rear and in the first enthusiasm of war those who

desired this work were retarded, but it soon developed that the demands made upon this branch of the service brought forth many heroes. It showed that it contained men who proved themselves more than equal to their duties not only in the confining, exhausting, endless work in the hospitals, but on the march, or in the field, listening patiently to the story of the weakened soldier, whether by the roadside, the camp or being called up at night from his restless slumbers, to give intelligent relief with cheerfulness. And while this little extract may be ideal, I am sure there are many both officers and men of the hospital corps of the army that deserve its every word.

But ever, where deadliest flies the lead  
And bloodiest is the loss  
Works the man whose way is to save, not slay,  
The man with the crimson cross.

#### DISCUSSION.

Dr. L. B. Tuckermann, of Cleveland :

I have had under my treatment one of these diarrheas referred to, and the proctoscopic examination shows the whole of the mucous membrane from the anus as far as can be seen ; *i. e.*, up as far as the sigmoid covered with a pseudo-diphtheritic membrane. As you remove that membrane with a sponge the mucous surface bleeds easily just as does the throat with the diphtheritic membrane. The treatment which was found most effective was spraying the whole of the rectum and the sigmoid so high up as could be done through the proctoscope with a ten grain to the ounce solution of silver nitrate every other day.

Dr. Elmer Lee, of New York :

I rise to congratulate the reader of the elegant and charming paper, and to call attention to some just recognition which the government has given the army physician. The senate and congress recently showed their appreciation of the volunteer physician of the American army by proposing to vote to each one an extra month's salary ; in addition to that, conferring upon him a commission of first lieutenant. In addition Dr. Van Reypen, of the navy, has succeeded in placing the physician on board the ships of the navy in the best and most advanced relationship to the other officials which they have ever enjoyed. He has succeeded in taking the surgeon out of the steerage, and placing him now in the regular quarters of the officers, so that the profession has much upon which to be congratulated for the attention and consideration which the government has at last bestowed upon those of our profession.

Dr. W. S. Stewart, of Philadelphia :

I was delighted with the paper pertaining to the diseases, and the manner of treatment adopted by our surgeons in the Philippine War. I happened to be in the service during the Civil War, and have been interested in noting the correspondence of diseases as they occurred in both armies. We had the chronic diarrhea to deal with there, and while we did not have the improvements which you have mentioned, we had a method of treating this disease with lead acetate and opium by which we had a great deal of success; so great that I am pleased to mention it as one of our remedies to be depended upon for good results. With a restricted diet such as hardtack and pork, the men were very liable to contract diarrhea.

It was also a matter of fact concerning our new recruits that they were always subject to attacks of typhoid or "swamp fever," very soon after they first entered upon camp life.

## THE NECESSITY OF EXPERT SUPERVISION OF MEDICAL ITEMS PRINTED IN THE DAILY NEWSPAPERS.<sup>1</sup>

BY WALTER L. PYLE, A.M., M.D., of Philadelphia.

The unreliable manner in which scientific facts are discussed in the daily newspapers is perhaps most prominently exemplified in the ridiculous reports of strictly medical matters. Not only are the smaller papers, and those which may be classified as sensational, the offenders, but also many of the most prominent journals of the large cities are equally at fault.

A striking point in evidence is a leading article in a recent issue of the New York *Herald*, and likely printed in other papers in affiliation with it, on the failing eyesight of Queen Victoria. This article states that unfortunately the rumors of Her Majesty's failing eyesight are only too well founded, and immediately following this is the paradoxical statement that several well known oculists, who have been consulted, can do little "beyond recommending the best kind of glasses to be used, because the Queen's eyes are *perfectly healthy*."

A few lines further is an *olla podrida* of nonsense that would shame any boy or girl with a high-school knowledge of physics and physiology. It is stated that "the oculists have advised Her Majesty to wear very large glasses, which will relieve the eyes, instead of the more fashionable small ones, which *focus the pupil*, and try it unduly." It is added that although "these glasses are not very becoming they are exceedingly practical."

This meaningless array of words has been considered of sufficient importance to be especially cabled to the *Herald*, and is printed in a most serious and pedantic manner.

In the same issue of this paper on another page there is a special article entitled "Sleep Cure for Nervous Diseases." This cure consists of the administration of "8 grammes of *bromin* every 2 hours in a glass half full of water," and its discovery is attributed to a Dr. Macleod, of China. Of course some form of bromid medication is meant, but never once is

<sup>1</sup> Read before the American Academy of Medicine at Atlantic City, June 4, 1900.

this indicated ; and the word bromin is repeated over a dozen times in the article, and this noxious drug is enthusiastically recommended in blissful ignorance of its poisonous and caustic properties.

In conclusion is unconsciously given the following ludicrous *double entendre*:

"Finally, he (Dr. Macleod) maintains that rest—absolute, prolonged rest—is the one thing which persons suffering from nervous disorders stand most in need of, and that they can obtain this rest through the agency of bromin better than in any other way."

There need be no hesitancy in assuring the first person upon whom this so-called 'bromin treatment' is tried, that the absolute, prolonged rest will come to him sure and fast, and that the desired Nirvāna will not be disturbed "till the crack o' doom." It may be added that the administration of large doses of bromids was originally suggested by Macleod in cases of the opium habit, and that three patients out of twelve so treated died, supposedly, from nephritic involvement.

These two examples of newspaper medicine have not been especially selected, but are fair instances of the blundering statements found every day in most of the best known metropolitan newspapers.

In approaching the question as to whether or not medical matters constitute legitimate news for the laity, it seems that the newspaper editors are in the best position to decide. If they were not popularly demanded, and eagerly read, it is not likely that special medical articles would be printed in such profusion. Granted that they have become necessary, it seems the poorest kind of policy to print them without proper preparation, or competent supervision. No progressive large newspaper, newspaper syndicate, or press association feels properly equipped without a staff of experts upon political, economic, financial, religious, and purely literary matters, and often large sums of money are expended to secure leading editorials and special articles from such writers, and many debated technical questions are referred to them. Certainly, it is equally important to have a competent physician to act as medical referee, and to whom

all contributions and reports of strictly medical bearing may be submitted for approval, revision, or rejection. By such a procedure, the valuable and reliable may be separated from the purely sensational, fictitious, and silly. To satisfy the morbid appetite of the devotees of the so-called "yellow journalism," there are more anomalous and curious facts in strictly scientific medical literature, than the greatest Münchhausen of newspaper medicine could ever imagine, and not only are they of much more interest but, bearing scientific endorsement, they are at once credible. The trite saying that "fact is stranger than fiction" is amply borne out in medical literature.

The medical member of the newspaper staff would prove particularly valuable in editorial work, upon such subjects as food-adulteration, water-filtration, quarantine, and all matters of general sanitation, which are of increasing interest to every one, and particularly to the inhabitants of cities.

Again, the offensive medical advertisement is a crying disgrace that might be corrected by the medical editor, who should act as censor on all notices of a medical nature. In this manner newspaper readers might be protected from imposition by quacks and patent medicine venders, and the feelings of women and children might be spared from the vile insinuations and villainous falsehoods of the lowest type of charlatans, who, sad to say, have almost unbridled license in the modern public press.

## PHYSICIAN VS. MEDICINE PROPRIETORS AND MEDICINE PATENTEES.<sup>1</sup>

BY A. RAVOGLI, M.D., Cincinnati.

The modern physician has always been interested in the prescription of remedies, but the preparation of drugs and their compounds has been left in the hands of the pharmacist.

The physician, by careful study, by keen observation of his patients, by long and tedious experimentation, has found the pharmacologic properties of minerals, of plants and of animal products; the pharmacist has prepared the drugs, has extracted the active principles, and has compounded the different preparations, which have been distributed to the patients according to the physician's prescription. Physician and pharmacist have gone hand in hand, and the advancement of one has been the benefit of the other.

The separation of the physician and pharmacist was the result of the social evolution. In the olden times the medicine man was connected with the priesthood; the administration of drugs was combined with the prayers. When superstition and ignorance were somewhat lifted, when the causes of disease were no longer the evil spirits which had taken possession of the diseased body, then the medical agency was separated from the ecclesiastical agency.

In consequence of the difficulty of preparation, in consequence of the daily progress of chemistry, it became necessary that the physician should be separated from the pharmacist, and the former should devote himself to the study of the action of the remedies, and to their uses, and the latter to the study of the different pharmaceutic preparations.

As a consequence of social evolution pharmacy has made so great progress that the dispensing pharmacist no longer sufficed for the preparation of all the chemie products, so a division has taken place giving us a dispensing pharmacist (druggist), and a manufacturing pharmacist.

<sup>1</sup> Read by title before the American Academy of Medicine, Atlantic City, June 4, 1900.

Some of the manufacturers are true pharmacists, some are nothing but merchants, who seeing some money in drugs have tried to take preparations away from the pharmacist simply for commercialism. Here we find ourselves in the presence of a great distinction between manufacturers. Some say: "Here is a new chemic compound of such an atomic combination that must have such and such properties." The others give a preparation, which although well prepared is only a reproduction of an old formula secured under the rights of a trade-mark with a different name.

It is not necessary to say that to the first class belong the highly scientific manufacturers; the second class is made up of money-making manufacturers, who find the field of medicine good for their commercial exploitation.

The social, the commercial and the scientific evolution has made it necessary to have factories limited to the preparation of different remedies, which could not be gotten up in an ordinary drug store without the help of steam machinery and other appliances.

Manufacturers have tried to secure protection for their productions so that no others could manufacture the same article, or at least put the same article on the market under the same name. Protection is afforded to them in two ways; by means of a trade-mark or by means of a patent.

It is the practice of many not to apply for patents for medicinal compounds, but in order to preserve the secret of the compound they sell the article under a trade-mark. This class of manufacturers I call medicine proprietors for the reason that they do not possess any patent for any new invention or modification in the preparation of the remedy, but they put on the market some compound with a strange name preserving the secret of its composition and preparation. In this way the manufacturer is protected, and he escapes the obligation of revealing the formula and the way of its preparation.

There is some difference in reference to the patent. Any person who has invented or discovered any new and useful art, etc., composition of matter, or any new and useful improvement thereof not known or used by others in this country, etc., may



obtain a patent therefor. When a patent is granted for a composition of matter, the component parts thereof, and the manner of making and using the same are disclosed to the public.

The only objection to the granting of a patent is that very little satisfies the patent office, and remedies without any value, probably harmful, have been patented and allowed to be sold to the ignorant laity. Old patents for medicines have been granted to any applicant, who never had any knowledge of medicine. For example, February 10, 1838, a patent was granted for a remedy for salt-rheum,—a new composition of matter as a remedy for salt-rheum and other humors of a similar character. The mixture is absolutely ridiculous.

July 23, 1841, a patent was granted for the discovery of a new and useful compound to be used in the treatment of pox or syphilis, lues, gonorrhea, buboes, gleet, and all other syphilitic diseases, and affections of any, and every kind whatever, in males and females, also in the treatment of leucorrhea, whites, or fluor albus in females. The ingredients are poke root, running brier, rattle weed, etc. These are samples of patented medicines.

In these last years, however, the applications for patents in medicinal compounds have improved greatly, especially in reference to the method of pharmaceutical preparations. The decision, however, whether the preparation is a really new and useful discovery and really deserves to be protected for a certain period of time, ought to be left to the judicial body of the American Medical Association or to the American Pharmaceutical Association. Those scientific bodies, either separately or in conjunction, ought to be the only bodies able to recommend a remedial article for a patent and protection. This is the method followed in France, where the National Academy of Medicine has full jurisdiction in this matter, and decides which medicinal preparations deserve to be protected.

By limitation of those patented medicines medical practice and society at large would derive great benefit. The laity in general has a great idea of patented medicines, believing them to be selected and rewarded by the government. They are so imbued with their superstitions and their errors that they cannot be changed ; they are positive that they have impure blood, and

they must go to a druggist and buy a bottle of blood purifier. Unfortunately the druggist for the little profit connected with the sale of that blood purifier encourages the superstition of the patient, and the latter takes many bottles, without any advantage to himself, but with good profits for the manufacturer. For the medical profession all these new names given to the same remedies cause great confusion, and have often been the cause of mistakes in prescribing and in dispensing the remedy. It is therefore desirable that these trade names be soon removed, and be replaced with scientific names in the pharmacopeia, so that there may be no cause for mistakes.

In considering the proprietary remedies it is quite plain to be seen that the proprietors are very seldom pharmacists or chemists. These proprietors are usually men who have been connected with wholesale drug houses, or physicians who had never succeeded in obtaining a practice. The agents employed to introduce their goods to the medical profession usually call themselves "doctors" who having no practice took the position with this or that chemical company, to advertise and show the qualities, beauties, and efficacy of those goods which they carry around to the physicians' offices. Many of these products are accompanied with some literature, containing endorsements of medical men, and also some pamphlets written for the purpose of praising the virtues of the different preparations.

Manufacturers do not let the clinics and the hospitals escape, for they keep them generously supplied with those products. The young physician sees the director of the clinic give that bottle of tonic to a patient, notes the name of the remedy, and they unconsciously become agents of the manufacturers. In prescribing it is necessary to think, to determine the dose, etc.; in ordering an already prepared remedy there is much less work, and for this reason especially young physicians are the best agents for the sale of those compound remedies.

In the patent office we find class 167, medicines, which is divided into the following subclasses: Capsules, disinfectants, extracts, hair dyes and tonics, insecticides, internal remedies, plasters, tobacco substitutes, topical remedies, veterinary. This classification, if it is useful for the patent office, has no value to a physician.

Of the internal remedies, the preparations which are usually offered to the medical profession belong to

1st, reconstituents, nutrients and tonics.

2nd, digestive compounds.

3rd, purgatives in different forms.

4th, diuretics with special action upon the genito-urinary organs.

It seems that the dietetic preparations afford the most profit to the manufacturers. Some of them are articles of food having as their base milk which is combined with malt and other carbohydrate elements. This kind of food is claimed to be of immense value for infants and for patients affected with wasting diseases, invalids, etc.

Other compounds are emulsions with a base of cod-liver oil, so thick that they cannot come out of the bottle. They claim that the cod-liver oil therein contained is disguised, and is therefore rendered much more palatable.

Other productions with the base of digestive ferments constitute the so-called diastases. Malt figures among the first active principles. These preparations are given as simple digestive elements, or some other remedies are combined with them. For instance, the old Churchill formula of the hypophosphites, with strychnin, quinin, and iron. Every one of these compounds bears a peculiar name with a prefix like pepto-, lacto-, phospho-, malto-, under which it is registered as a trade name giving an idea of the composition of the remedy. In order to obtain the desired effect they must be taken in large quantities, and many bottles are required to see the result. After trying their patience and their faith in swallowing these remedies, the patients usually get tired, disgusted, and refuse their further use.

In the line of purgatives there is a series of mineral waters, fluid extracts, pills of every description and name, so that it would be impossible to mention all.

The history is quite interesting of some patented remedies of this kind which have produced enormous fortunes. This shows that charlatanism to-day affords the same chances for a fortune as it did in the past centuries. In the *Journal of the American Medical Association* special article (April 28, 1900), the "Relation

of Pharmacy to the Medical Profession," two compounds are referred to, castoria and syrup of figs, which are nearly equal in their composition, the active principle being the senna. It was already known that senna treated with a weak alkali furnishes a preparation which, retaining its purgative properties, loses the griping qualities. Both these preparations owe their value to the deresinized senna.

Another fortune was made through condurango, which was backed by the Bliss syndicate, under the assumption that it had cured of cancer the mother-in-law of Schuyler Colfax. Subsequent discoveries revealed it to be a bark without any special therapeutic efficacy.

Under different names a large quantity of thick compounded preparations are introduced as genito-urinary tonics. The most important ingredient is the ryzome of the *agropyrum repens* or couch grass, and of the saw palmetto. These are in the order of demulcent diuretics, and in cases of cystitis, rendering the urine less irritant, are of some benefit. These preparations are to be taken in large doses, and are claimed to cure cystitis, urethritis, prostatitis, and nearly all the genito-urinary affections. These bottles are accompanied by a large quantity of endorsements, and recommendations from physicians, who are made the cat's paw to spread the medicinal compounds. Not much is known of the physiologic and pharmacologic action of the remedy, but the agent claims that it has cured many cases, and the testimonials show that in case A, where nothing could be done, a cure was effected with three bottles of the compound.

All these medicinal productions belong to the polypharmacy, consisting of different remedies, which is the chief factor in maintaining the monopoly of the remedy. They are based on empiricism, often resulting in no benefit to the patient, and in no satisfaction to the physician.

External remedies for external application, are produced in a great quantity. Some are used as antiseptics, astringents, deodorants, protectives, etc. The largest class is that of the antiseptics in liquid form. Of these we have some which are of invaluable benefit, and are constantly used in medicine and surgery. For example, we have the hydrogen dioxide, also the pyrozone,

hydrozone, and glycozone. The name is appropriate, giving an idea of its chemical constitution; it is easily remembered and cannot cause any confusion.

Innumerable fluid compounds are given as antiseptics; most of them have a base of thymol, boracic acid, methyl salicylate, and menthol. Some bear names of illustrious scientists, to impress upon the public their composition and their efficacy. Every physician can prescribe an antiseptic solution, whose preparation will cost only a few cents, but those under a trade name, already prepared and put in fine bottles, make a better impression, and many physicians would consider themselves not up to the standard if they would not prescribe these antiseptic preparations.

Many ointments have lately been given for external application. Some are fatty substances used only as vehicles for ointments. Many are very desirable, as vaseline, vasogene, lanoline, etc. The name gives the history of their origin; in the pharmacopeia they cannot be registered otherwise. In regard to compounded ointments it is necessary to be very careful in order to know exactly their composition and the dose of the ingredients. In many ointments mercurial preparations are contained which when used in large surfaces may cause stomatitis. In many instances these patented ointments are the cause of dermatitis and erythemata on account of the irritant ingredients contained in them. In the same way with regard to medicated soaps, we must always know the composition and the quantity of the ingredients so as to avoid irritation of the skin. It would be exceedingly lengthy to go over all the different pharmaceutic compounds which we recognize as proprietary medicines; it would be nearly an impossibility to review all of the different proprietary external applications which every day are appearing in the medical journals, or are sent as samples to the physician. It is necessary for me, on account of the short time allowed, to stop on this interesting subject. I do not like to mention any particular production, I do not like to mention any particular pharmaceutic preparation, made either in this country or made in the old country. I consider them altogether as proprietary medicines, and as such I apply my remarks to them.

In this enormous multiplicity of remedies and of compounded preparations, the proprietors and the patentees are endeavoring to show by every means the alleged superiority of their articles, and the efficacy of their productions. The competition between themselves is great, and therefore the article produced by another chemical company although resulting from the same formula is no good, has no effect, and therefore when prescribing that medicine, the name of the chemical company must be placed in the prescription.

All this is the result of competition, and in order to make money these merchants do anything. Of course the first important step is to introduce the remedial preparation in the medical profession, then it will go among the public. Several remedies which were introduced a few years ago in the medical profession, and readily accepted by the physicians, are to be found to-day in the saloons, as a result of advertisement.

Advertisement is made in the daily press, in the medical journals, or by sending samples of the preparation to the physicians accompanied by some medical reports. The way of introducing the remedy can be in itself a good criterion of its value. When the proprietor of a remedy or a patentee resorts to advertisement in the daily press, this is already a breach of the code of ethics, and the preparation must be regarded with suspicion by the physician. The physician recommending or prescribing that which is advertised in the daily press commits a breach of the code of ethics, encourages quackery, and debases his professional dignity. Any composition intended for remedial purposes, when advertised in the daily press, is for the public, and the physician has nothing to say, except to caution the unwary people not to take remedies of which the composition is not known, without medical advice.

Advertisements of remedial articles in the medical journals show the good intention of the manufacturers and of the proprietors to deal directly with the medical profession. Unfortunately, the medical journals are easily brought to accept an advertisement, which although not entirely in accordance with the code of ethics of the American Medical Association, yet together with the others can pass without any trouble. Some of the medicine

proprietors have their own medical journals, with very little reading matter, but with large quantities of advertisements, which are usually sent free to the doctors in order to persuade them to use their productions. Young doctors are requested to write some articles on the value of this or the other medicinal preparation, with the report of a few cases perfectly cured by the use of the remedy. These little reprints are given to the doctors with the samples in order to impress its value on them.

Gentlemen, I do not wish you to believe me too caustic against the medicine proprietors and patentees. I accept cheerfully any preparation which has some value, which has some new process in its preparation, which is rendered more palatable and easier to administer. I accept any preparation which is composed of valuable ingredients, according to the pharmacology and chemistry. I try almost any remedy and any preparation, and when I find something which does good I accept it, but when I find that its usefulness is entirely doubtful I have the right to discard such remedies from my practice.

The new pharmacopeia will be of great help to the physicians, placing all the new remedies in their proper classes, giving them their true names, and procuring in this way a uniformity of nomenclature. The pharmacopeia, however, cannot be published every year, but only after a certain number of years. This causes it to become old on account of the new remedies and new preparations which are produced every year. In this condition of affairs it remains with the physician to make the discrimination between the different preparations. It remains with the medical journals to accept advertisements of reputable preparations, and to refuse those of preparations of unknown composition.

In conclusion, I must congratulate those scientific manufacturers, who with their study and their patient experimentation, have succeeded in placing in our hands remedies which are of invaluable benefit in medical and surgical practice.

For the other class of money-making manufacturers who place on the market unknown compounds, I say to the physicians to be careful and accept their products only after a trial and authoritative information.

In conclusion, I would say that a physician interested in the

welfare of his patients will always conscientiously prefer their benefit to the interest of a manufacturer. A little present sent by mail, will not be any inducement to prescribe remedies in which he has no confidence. Experience and good sense will guide him in the selection of the remedies, and he will take no notice of the shabby literature which accompanies advertised useless preparations.

5 GARFIELD PLACE.



## THE MISSION AND DUTIES OF THE TRUE PHYSICIAN<sup>1</sup>

BY C. F. ULRICH, A.M., M.D.

Just as the physician, when he undertakes to treat a disease, first endeavors to ascertain the nature, character, and cause of the disease, so we, before explaining the mission and defining the duties of the true physician, will make our diagnosis, and define what manner of man the true physician is.

The old method of making a diagnosis by exclusion is a very practical one, and I shall make some use of it in this paper. If we review the various motives that induce young men to study medicine, and observe the actions and conduct of many practitioners, we can learn, to some extent, the distinction between the true physician and the one who does not deserve that title. By pursuing this system of exclusion, placing on the outside of our circle those who adopted this noble calling from wrong motives, and those who have been led by selfishness and the greed of gain to pursue an improper course of conduct and practice, we can form a fair idea of what constitutes the true physician.

Let us cast a glance over the history of the great army of nascent physicians, and see of what material they are made. Here is a young man who has observed that the physician's calling is a highly respectable one; that he is admitted into good society; that he is usually well dressed; has clean, delicate hands; rides in a carriage and is generally looked up to. He, therefore, concludes that the only thing necessary for him to do, is to enter the medical profession and everything else will follow. He never stops to inquire: Am I fitted for this profession? Have I the necessary qualifications? Am I sufficiently and properly educated to qualify me for entering upon the study of this complex, laborious, soul-trying, and difficult calling? Do I possess the proper temperament, disposition, industry, and patience to enable me to persevere to the end? Have I the characteristics to attract the people to me? To hold them after they have been attracted? Have I the tact, or the capability of acquiring that which is essential

<sup>1</sup> Read before the American Academy of Medicine, Atlantic City, June 4, 1900.

to following out the ramifications of disease, to hold the attention and the confidence of the patient until he or she is once more able to resume the ordinary duties of life? Can I hold my own against the continual interference and meddling of the family, friends, and neighbors who wish to dictate to the doctor, and who make frequent suggestions to the patient? Can I live on nothing or next to nothing for a number of years until I shall have established a reputation that will secure me a practice and emolument? No, he asks himself none of these questions because they do not occur to his mind; but he rushes blindly, without due consideration, into a work for which he is often utterly unfitted.

When at last the conclusion is inevitably forced upon him that he has made an unfortunate choice, that he is in no wise fitted to perform the functions of the profession he has so thoughtlessly chosen, his vanity, his self-conceit, or his fear of criticism prevents him from acknowledging this to the public, or even to himself, by withdrawing from the profession, by adopting a more congenial vocation, or one better suited to his capacity. He then endeavors to supply the deficiency by resorting to irregular practices to attract the attention of the public, make the people believe in his superiority and gain notoriety, wealth, and emoluments by a variety of tricks and expedients that characterize the charlatan or quack.

Now if every young man before choosing a profession so important to human life and health would carefully investigate the requirements of the life, the labor and the duties devolving upon the man who assumes that fearful responsibility; and, by due introspection, ascertain his qualifications for that onerous and almost sacred calling; the medical profession would be much purer, not overrun to repletion, and decidedly more successful than it is at the present time. Nor would there be any necessity for writing a paper such as this. But, unfortunately, there are many who should never have enrolled their names on the roster of the great healing army, whose function it is to save life, not to destroy it; to preserve and improve health instead of laying the foundation for future disease and decrepitude, as is done by the fighting army. All of that class must of course be excluded and can not be reckoned among the true physicians.

Now let us consider the man who has the talent and the education essential to the foundation of a thorough medical training, and who gives abundant promise of making a first-class physician. He enters upon the study of the healing art with enthusiasm, and comes out of the final examination with flying colors. But when he starts upon his career as master in the art of relieving human suffering, restoring lost health and saving life, he finds himself deficient in some of the characteristics essential to a good and successful physician. He has not the patience to wait for business to come to him in the ordinary way, but desires to outstrip his colleagues in gaining fame and in the acquisition of wealth. He adopts some questionable methods, such as boasting of his achievements in medicine and surgery, which boasts, if not actually untrue, are very much exaggerated. Knowing the tendency of the masses to regard the skilful surgeon as a much greater man than the mere healer of disease, he converts as many cases as possible into surgical ones. He speaks of his colleagues, who occupied the field before him, as inferior in scientific attainments and practical skill, declaring them behind the times and altogether unfit to cope with him. Such a man cannot be classed with the true physician, and must take his place on the outside.

But, suppose he does none of these things, showing himself to be a man of honor and going about the business of his adopted calling in a perfectly legitimate way; yet exhibiting a lack of the faculty of observation and combination. He may be thoroughly posted in all the branches of medical science; yet, because he does not possess, or has not cultivated the habit of close observation, and is deficient in that peculiar reasoning faculty known as combination, that is, putting together the knowledge obtained by observation, and drawing correct deductions, he often fails to make a true diagnosis; and, treating the patient for the wrong disease, fails, where a close observer and more practical man would succeed. The man who is deficient in this respect and, either does not try or is unable to improve this defect, must take his place outside the pale. Again we may find a man who has none of these defects, who is endowed with all of nature's gifts, who, in his literary, scientific, and profes-

sional education, is fully up to date, whose powers of observation, and reasoning faculties leave nothing to be desired : in short, whose qualifications in all the departments heretofore described, are faultless ; but who, nevertheless is deficient in tact, does not know how to make a favorable impression on the mind of the patient and the family ; fails to secure their confidence, which is essential to success ; does not stand up with that degree of self-confidence, born of knowledge, which impresses every one with the feeling that he knows what he is about, understands the case, is fully posted as to the character of the disease, the prospect for recovery, and the best method of treatment. Such a man will often fail where another of less ability and inferior attainments may succeed ; and although doing so with regret, we must exclude him from the circle of true physicians.

In the nearly 40 years of my practice I have met many men who had all the qualities that go to make up the model man, the perfect gentleman, the well-informed, practical and thorough-going physician, who nevertheless failed to make a successful career, and found it necessary to change their occupation, going into another vocation that would afford them a livelihood. We might draw the lines still closer and exclude many more from the list ; but let this suffice.

Every man who lives to full development, has a mission and exercises an influence, be that for good or evil. The impression that a man makes is never ending. It is communicated from one individual to another in a continuous chain. I use the word *man* in its generic sense, including both sexes. When a pebble is thrown into the water the disturbance does not end where it began ; but it is imparted to the adjacent particles of water which transfer it to the next, stopping only when it comes to the end of the water. What influence it exercises on the opposite shore, or on the circumambient air, we do not see ; but we may take it for granted that it does not stop here. So every act performed, every word spoken, yea every thought conceived by man exercises an influence that never ceases. It is not the province of this paper to speak of any action, word or thought of man, except those of the man whom I have endeavored to depict as the true physician.

What is his mission? What is the purpose of his being? What part is he to play in the great drama of human life? Is it simply to go through life with a reasonable amount of comfort and enjoyment? He could accomplish that without spending many years in the acquisition of an academic and collegiate education; laboring four years in hearing and digesting learned lectures, attending clinics, toiling night after night at the disagreeable and disgusting task of the dissecting table; spending a year or two at the hospital without compensation, and then starving for a greater or less period of time in an effort to establish a remunerative practice, if he ever does it at all. There are many walks of life that will give a competence in much shorter time, with far less labor, requiring much inferior abilities.

Is it to acquire wealth? Out of 10,000 physicians, how many become wealthy, or even possess a comfortable competence? Is it to become famous? How many, out of the same number, are there whose names are known beyond the confines of their own city or county? Small indeed is their number, almost inappreciable.

The true physician is the conservator of life and health; a powerful contributor to the happiness of the individual and the family. This is in part his mission and the purpose of his being. If he fails in this, he cannot arrogate to himself that great and ennobling title. Yet, when he has earnestly striven to prevent or postpone physical death, and has done his best to preserve bodily health, or restore it when lost, are we to suppose that his mission is fulfilled, and that he has done all that is required of him? By no means! There is much more for him to do. His mission is also to do all in his power to prevent disease; to instruct his clientele how to live so as to enjoy the best of health, and to post them in the principles of hygiene and sanitation.

The intimate connection between the human body and the thinking, sentient being that either inhabits the body or forms part of it, is well-known to all physicians who have done something more than acquire a mere superficial knowledge of physiology, pathology, materia medica, and therapeutics. The intellectual and moral nature of man is so closely dependent on his physical condition that it is impossible for a discriminating

person to become acquainted with one, and fail at least to infer the character of the other. The physician, therefore, in preserving and improving the health of his clients, also exercises a great influence on their intellectual and moral nature, performing the function of a missionary as well as of a physician.

The full accomplishment of this mission involves a variety of duties which, if not understood, or if persistently neglected, will exclude the one thus failing from the list of true physicians. A few of the most important of these duties will be mentioned, space and time being too short to go through them all, even if I possessed the necessary knowledge.

In the first place, let a young man, contemplating the study of medicine, and an entry into the army to make war on disease, apply the ancient motto: "*Γνώθι σεαυτόν.*" Let him examine himself, to see whether or not he possesses the necessary qualification to make a successful soldier in that army; an adequate talent for profound study; sufficient general education to lay a competent foundation for the peculiar and difficult studies necessary to acquire a thorough medical training; indomitable perseverance; ability to endure almost endless labor and hardships; patience to wait for business and, when this comes, to put up with the vagaries and crankiness of patients; tact to manage the ignorant, and sometimes conceited relatives of the patient; powers of discrimination with clear judgment in difficult cases. If he stands the test of this self-examination he may regard himself as qualified to enlist. Having passed successfully the preliminary examination, his next duty is to throw aside the frivolities indulged in by so many medical students, and to enter heart and soul upon the work of storing his mind with facts, accepted theories, and prevailing modes of practice, exercising, at the same time, his best judgment as to the validity of the theories and the correctness of practice.

During his course of study he should cultivate his memory to retain a knowledge of the facts, his judgment in discriminating between the true and the false, the reasonable and the unreasonable, the natural and the fanciful. He should quicken his powers of observation at the clinical lectures during his service in the hospital, so that not the least symptom, nor the most tri-

fling incident could escape him in his service at the bedside.

It may be objected that this instruction applies only to medical students, and not to practitioners who have completed their education. Gentlemen, your education is never completed. When you have passed your final examination and received your diploma, constituting you doctor in medicine, your education is but just begun. The young man, with the ink scarcely dry upon his diploma, is apt to think he knows it all; that those who have gone before him have not enjoyed the advantages of instruction in modern methods, and are consequently behind the time. But how often does he find himself confronted by a puzzle which he cannot solve with all his ultra-modern learning, and would fain ask some veteran for assistance!

If he has failed in any of the points mentioned above, while a student, it is manifestly his duty to make up for lost time by diligent study, and by now and then humbling himself so far as to go to a man of experience, and ask for counsel and instruction from him whom he has accustomed himself to regard as behind the time.

One of his duties is to be always on the lookout for facts concerning the previous history of the patient which may have led up to the attack then under treatment; to exercise the closest observation in discovering symptoms; to judge to the best of his ability, what bearing these facts and symptoms may have upon the diagnosis and indications of treatment, as well as on the prognosis. These constitute some of the most important duties of the physician who would come up to the standard. Another duty is to endeavor to gain the confidence of the patient and his family by being always sincere and truthful. Doubtless, sometimes it is best, for the safety of the patients, not to inform them of the gravity of the case, or the danger of life. But in no case, should a falsehood be told; for this always tends to weaken the confidence in the doctor, which confidence is very necessary to his success in the treatment.

Another duty of the physician is a close and thorough study of nature, so far as it has to do with human life and health. In former times hygiene and dietetics were not regarded as being of so much importance as they are now. The great advances

in the study of nature and its healing power have brought hygiene to the front ; and preventive medicine, with a thorough knowledge of nutrition, leads the van. The advanced physician no longer stuffs and crams his patient with nauseous, irritating and poisonous drugs, imagining he is driving out some evil being that is creating the disturbance, which can only be done by first making the patient very sick. The motto of the present day is to study nature, ascertain where and in what way she fails to accomplish her work ; to learn whether the failure proceeds from impure air, water or food ; to correct the difficulty by placing the patient into better surroundings, administering more suitable food and purer water ; to investigate carefully if there exists an actual lesion in any of the organs ; if so to apply suitable remedies, medical or surgical, taking care not to overdo this part of his work, but, at the same time, to act promptly and vigorously where such interference is deemed unavoidable.

Modern surgery teaches us that, under certain circumstances, an organ, or part of an organ that is not essential to life, may be removed if it is irrecoverably diseased. Great advances in this field have been made in modern times, and surgery has almost been elevated into an exact science. Yet here the duty of the man who would be rated as a true physician, becomes manifest and urgent. All the internal organs of the body have a function to perform, with perhaps the exception of the appendix vermiformis which is giving the world so much trouble just now. This hardly deserves the name of organ, being, in my opinion, merely the rudimentary remains of a long since disused organ. My reasons for this belief do not belong to the subject of this paper, and need not be explained here. Some of the organs are duplicate and, under certain conditions, one may perform the work of two. Some again, although having a very important duty to perform in the animal economy, are yet not absolutely essential to life, and a sort of imperfect life may be sustained without them. Now it is plain what the duty of the physician is in case of serious lesion of any one or more of these organs. He must examine the case so carefully as not to leave a single part unconsidered. He must ask himself: Is the organ diseased? Can it recover by the use of appropriate remedies?



Is recovery impossible? Will the patient die if not operated upon? Is life possible with that organ removed? Can it be removed without causing the patient to lose his life? All these questions must not only be asked, but carefully weighed, and the answer conscientiously given. Then the course of the physician must be in accordance with these answers; he, under no circumstances, allowing his private interest, reputation, or emolument to modify or change his action.

This applies as well to the physician who is treating the sick as to the surgeon who may have to operate. The benefit to be conferred upon the patient by either medical or surgical treatment should always be paramount to every other consideration. This does not exclude the earnest endeavor of the physician to obtain his fee for service rendered; even to employ legal process against those who are able to pay and neglect or refuse to come up to their obligations. All duties are reciprocal, and the physician who has spent his life in labors to acquire a medical education and devoted all his best years to the alleviation of human suffering, is certainly entitled to his reward. Yet he should do nothing to dim the reputation of the medical profession for being a benevolent and charitable body of men.

The physician has, in the very nature of things, a powerful influence in the community where he practises. His conduct is closely observed and often imitated by the masses of the people. It is therefore his duty to be a shining example of truth and honor to those who look up to him. In fact he should be a model man whom all would be safe to imitate, whose virtues and good qualities would diffuse a brilliant light on those who come into his presence.

He should not only labor to restore lost health, but should also instruct his clients and the whole community in the laws of hygiene; urge the municipal authorities to provide for general sanitation; in short he should employ the full weight of his influence and the entire scope of his knowledge in promoting the health and happiness of the people. The physician should not confine his labors to relieving the bodily ailments of his patient when sent for, but should watch over the growth and development of the whole man,—the brain, the nervous system, the

digestive and assimilative function. Now, since there is such a great interdependence between the physical and the intellectual powers, it follows as a matter of course that, when the physical functions are well cared for, the intellectual powers will be proportionately improved; and the teacher whose duty it is to develop the intellect and store the mind with useful knowledge, will have a much easier task to perform, because the mind belonging to a healthy body is much more easily instructed and acquires knowledge more readily and thoroughly than the one that has for its support a frame only half developed, or worn out with disease. On this account I regard it as a misfortune that that useful and valuable institution, the family physician, is fading out of sight. If every family employed a well educated, experienced, honorable, and thoroughly reliable physician to be general adviser of the family, calling in the specialist when the family physician found it advisable, a much better state of affairs would exist in the family, and both the physical and intellectual powers would be improved, growing nearer to perfection all the time. By a harmonious cooperation of the general practitioner, or family physician, and the specialists in the various departments, the physical health, and, through it, the intellectual strength would be brought up to a much higher plane than it has yet attained.

Another duty of the true physician is to avoid selfishness; to be an altruist, in the full sense of the word. By this I would not convey the idea that he must toil and wear out his life without ever asking any reward, for the laborer is always worthy of his hire. I mean this: If two paths present themselves in the course of his practice, one that redounds to his own benefit, but may do harm to the patient, the other leading to the recovery of the patient, but being of no advantage to himself, it is his duty to choose the latter, trusting to another source to obtain a suitable meed for his labor. He must always bear in mind that the man who lives for the benefit of the world, receiving his reward as an incident, is more to be admired than he who exists and labors only for his own emolument, merely benefiting others incidentally.

Now I know I may incur the severe criticism of many esti-

mable men, whom I know and respect, but who are of a somewhat pessimistic disposition. They will tell me that the world is not so constituted; and that, by following such a course, success is impossible. But I am satisfied that the man, possessing the natural ability, the physical and intellectual culture and the moral characteristics I have here ascribed to the true physician; who earnestly endeavors to fulfil the mission he undertook when he adopted the noble, the difficult, the laborious, the responsible calling of the medical practitioner; who strives with earnestness and zeal to discharge the duties herein described or implied if not mentioned, although he may not acquire wealth or live in luxury, will yet be happier in his latter days, when, having retired to rest, he looks back from his humble home, reviews the field of his past labors, contemplating the good he has done, than the man who, regarding his calling as a mere trade, for the purpose of accumulating wealth, has adopted all the catch-penny methods usually employed by the money-grabber; who has only regarded the sick and the afflicted as so much timber out of which to carve future wealth and position; to whom his clients were only stepping-stones to fortune; whose health, comfort, and happiness only concerned him so far as they brought money to his coffers. Such men, although they may be permanently successful in life, and may accumulate a large fortune, rolling in wealth, do not enjoy life nor end their days in the quiet, comfortable happiness of the other man whom I have described as the true physician.

By way of a brief résumé of my argument I will say that he only can be regarded as a true physician in the strictest interpretation of the word who is endowed with the peculiar talent necessary for the work belonging to that noble, but laborious vocation; who has acquired the high order of general and special education essential to successful work; who never relaxes his efforts to gain more knowledge in his profession as his horizon extends and as new discoveries are made; gathering this knowledge from every source, even the humblest; who continues to exercise and sharpen his powers of observation; who assiduously and conscientiously discharges all the duties pertaining to this walk of life; not only those laid down in this

paper, but all that occur to his mind in the course of his practice. The man who comes up to this standard is fully prepared to accomplish his noble mission to heal the sick and afflicted where that is possible ; to alleviate the sufferings of those who are incurable ; to minister to mental sufferers by his cheerfulness and uniform kindness in the sick-room and to the afflicted family ; to perform the part of an educator and civilizer by instructing his clients in the art of maintaining good health and, as an inevitable consequence, a cheerful disposition and a clear, unclouded intellect. I may be accused, by some of my colleagues, of being visionary, imagining perfections that cannot be attained. But that is an error ; for, in my checkered career, I have found many, both in the city and in the rural districts, who have come up to this standard, discharging the duties pertaining to their vocation all their lives and dying, loved and honored by all those who had been benefited by their ministrations, as also by the general community in which they had lived and labored. Nor did they live and die in poverty, as is often prognosticated by many of our commercial physicians. They lived, not rolling in wealth, but in the enjoyment of a competence and even able, at their death, to bequeath a modest sum to their descendants. I could name some in our City of Wheeling who have fulfilled their mission during their lives, discharging all their duties to the best of their ability and whose names, after death, remain engraven on the hearts of all who knew them and came in contact with them.

Then let all who are engaged in this noble but arduous profession, strive with all their might to attain the title of true physician, fulfilling to the best of their ability their lofty mission. Let their motto be "Excelsior ;" let them never relax their efforts as long as health and life remain. Then when death comes they will feel that they have not lived in vain ; that they have conferred some benefit upon their fellow men, and their names will not be forgotten.

## "GOOD FORM" IN PROFESSIONAL CARDS.<sup>1</sup>

BY CHARLES MCINTIRE, A.M., M.D., EASTON, PA.

The American Academy of Medicine is to be congratulated because it concerns itself so seldom with the individual actions of its membership, and also because, during the 24 years of its life, securing its members from all over the country, most of them personally unknown to the members of the Council, there have been so few who have manifested a disposition to gain notoriety at the expense of professional ostracism. As a member of the Council since 1878 and in attendance at most of the meetings, I can recall but three instances where there was any discussion about disciplinary measures, and in each case the roll was purged without the opprobrium of a trial.

Last year, exception was taken on the floor of the Academy to the wording of a professional card of one of our fellows, and the secretary was instructed to communicate the criticism made to the issuer of the card. This was done. I quote two items from the reply: "If I have inserted anything in this card not in accordance with the code of ethics of our profession, the error is one of judgment and entirely unintentional. \* \* \* If you have or know anything giving definite information on this question, I will be pleased to know where I can secure it. I desire to live in accordance with the regulations of the best of our profession, and if I have committed an error, shall earnestly strive to avoid its repetition." In my reply, I asked for time to be able to answer the question, because while I could give my own opinion and practice, I was not able to speak authoritatively for the profession.

In striving to formulate a reply to this inquiry, one must remember the extent of our country and the possibility of a variation of the proportions going to make "good form" in different localities. The newspaper jokes illustrate this. Thus, for example, were the dialogue reversed, no newspaper would repeat the joke of the Boston woman asking her Chicago friend, "Why do Chicago people ask, 'How is things?'" To which

<sup>1</sup> Read before the American Academy of Medicine, Atlantic City, June 4, 1900.

the Chicago lady replies, "Because we want to know." So in medicine, the *Boston Medical and Surgical Journal* prints advertisements of the Massachusetts physicians that never would find place in the Philadelphia medical press. The western part of our country is vast, it is the great and glorious West, and the permissible size of a physician's sign seems to vary directly as the distance from the Atlantic; I mean, of course, among proper physicians. While a French author would never think of naming a volume, as did Conan Doyle, "Round the Red Lamp."

Among the letters received at my office during the year were several from physicians in good standing in their state and active in the American Medical Association, but all living west of the Mississippi, whose letter heads claimed special practice without the cabalistic redeeming words of the Judicial Council "practice limited to —" and on the envelope of one were printed, in some parts of the world, the condemning words "oculist and aurist." Might there not be a similar variety of practice in the professional card?

To answer this question, I have solicited the contribution of professional cards in the last circular letter sent out to the fellows. Several have sent me quite a number, still others have sent their own cards, and to these I am indebted for the material for this paper. I regret, however, that so many failed to reply, because the number tabulated is so small as to afford no results whatever. They are given in the simple hope that this presentation of the subject may assist in securing a larger collection; no deduction ought be drawn from any number less than 10,000 cards.

One collection sent me was gathered by Dr. Bulkley in his recent course of lectures at the New York Skin and Cancer Hospital. Dr. Bulkley requested those in attendance to leave their cards. This is mentioned because a large minority tore a page from their prescription book, not having a card, showing that many of them do not trouble themselves with a card at all.

I have classified the cards under four divisions:

A. Where the name alone was given.

- B. Where the name and address were given: the address might be the street address with or without the name of the place, or simply the name of the place.
- C. Where, in addition, the office hours were printed, and perchance the telephone number.
- D. Where something beyond these facts was added. This class will receive especial attention.

In the matter of the appearance of the cards themselves, there is a great variety, from the dainty engraving, to a type-printed card, which showed the imperfection of an amateur press; and the poorly appearing cards from the typographic point of view, were as much in evidence among those from New York as anywhere.

The cards of but 201 individuals were received, and these are classified as follows:

|                           | Total.     | A.        | B.        | C.         | D.        |
|---------------------------|------------|-----------|-----------|------------|-----------|
| California .....          | 1          | .         | .         | 1          | .         |
| Colorado.....             | 10         | 1         | .         | 8          | 1         |
| District of Columbia..... | 2          | 1         | .         | .          | 1         |
| Illinois.....             | 3          | .         | .         | 3          | .         |
| Iowa .....                | 4          | .         | 1         | .          | 3         |
| Maine.....                | 2          | .         | 1         | .          | 1         |
| Massachusetts.....        | 20         | 1         | 2         | 16         | 1         |
| Missouri .....            | 2          | .         | .         | 2          | .         |
| New Jersey.....           | 3          | .         | .         | 3          | .         |
| New York.....             | 105        | 7         | 18        | 75         | 5         |
| Ohio .....                | 1          | .         | ..        | 1          | .         |
| Pennsylvania.....         | 48         | 3         | 11        | 31         | 3         |
|                           | <u>201</u> | <u>13</u> | <u>33</u> | <u>140</u> | <u>15</u> |

Of the 15 in section D:

1. From Colorado—the physician is connected with a medical journal, which fact was on his card.
2. From District of Columbia—the name was given there A.M., M.D., F.R., etc.—practice limited to nervous and mental diseases.
3. From Iowa—member of the State Board of— is on his card.
4. “ “ —the name is followed by M.D., C.M., and the word surgeon on a line below.
5. From Iowa—limit practice to diseases of the eye and ear.
6. From Maine—“Diseases of the Eye, Ear, Nose and Throat.”
7. From Massachusetts—A removal card, states that Dr.—, having resigned from the — — Asylum, resumes his practice, etc.

8. From New York—"Special Attention to Surgery."
9. " " " — —, M.D., C.M., McGill University, L.R.C.P.  
and L.M. Edin.
10. From New York—In red ink, "Keep this card for reference."
11. " " " —"Prof. of— in the —."
12. " " " —Adorned with some Chinese characters, the meaning of which is not known to your essayist.
- 13-14. From Pennsylvania—"Messages should be sent before—A. M., if possible."
- 15 From Pennsylvania—"Specialist in Female Complaints."

As far as it goes, it appears that the majority of physicians think it is good form to put on their professional cards, (1) the name prefixed by "Dr." rather than followed by M.D., (2) their street address, (3) their office hours and telephone number. Some do more than this, as eight of the 15, who have the additional items on their cards, occupy such positions in their respective localities as—presumably at least—to be in excellent standing among their fellows; of the remaining seven, I know nothing whatever. But the cards tabulated are so few, I am not yet able to answer the question caused by the correspondence required of me a year ago, and I appeal to the Academy for help.

104 N. 4TH ST.



## SECRETARY'S TABLE.

The topic suggested by the Committee on Program for the 1901 meeting of the Academy are of interest and importance. The 20th century physician will be required to take cognizance of man in his entire self, and in all his surroundings to a much greater degree than in any of the days that have passed. Historians are fond of telling us of the union of the priest class and the physician class in the same person at the beginnings, and of the gradual differentiation of the two with the progress of knowledge. This same progress has also developed the close relation of the physical, the intellectual, and the spiritual in man. Professor Herdman's admirable paper at the last meeting, to be found in this number, is suggestive of the necessity of the knowledge of a sound, practical psychology by the physician; as much so as an experimental acquaintance with physiologic phenomena.

The century now closing has seen wonderful advances made in sanitary science, and no one disputes the physician's right to be in the forefront of investigation and practice. It has also seen the beginning of the proper investigation of social science by the medical profession, and it soon will be universally admitted,—if it is not already so admitted—that if we wish to have healthy individuals, there must be wholesome surroundings. If we wish the man to be at his best, the social, the economic, and the civic conditions must be as carefully considered as the hygienic and the physiologic. Hence, it is that there is a very wide field for medical research in connection with the symposium on institutionalism. Some very excellent papers are already promised; it is hoped that many more will be offered.

The remaining symposium on medical reciprocity in state licensure, is far from being a handle-of-the-jug discussion. Within the last three months, the secretary has had the opinion adverse to reciprocity expressed to him by three men who are serving as medical examiners. If we can but bring together the facts and the proper deductions thereupon, the correct solution of this much agitated question will be greatly aided.

The syllabus, as prepared by the committee for these symposia, is given below.

## I.

## INSTITUTIONALISM.

- a.* What is it?
- b.* The need for it.
- c.* The results.
  - 1. Upon managers.
  - 2. Upon inmates.
  - 3. Upon the community.
- d.* The abuses.
  - 1. In management.
  - 2. In its use by the people.
- e.* Suggestions for betterment.

## II.

## RECIPROCITY IN MEDICAL LICENSURE.

- a.* The purpose of reciprocity.
- b.* The conditions essential to obtaining reciprocity.
- c.* The demand for reciprocity.
- d.* The obstacles in the way of reciprocity.
- e.* Other methods.

Opportunity will be given for papers on other subjects, than included in the two general topics above suggested.

\* \* \*

Our ex-president, Dr. L. Duncan Bulkley, is giving his third series of clinical lectures in the Out-patient Hall of the New York Skin and Cancer Hospital, on Wednesday afternoons, at a quarter-past four. The profession is welcomed to these lectures.

\* \* \*

The press department of the Pan-American Exposition is furnishing information of the forwardness of preparation, and the promise of excellence of the undertaking.

\* \* \*

The Vermont State Medical Society is in the process of reorganization for the purpose of bringing the members of the profession into closer relation with each other and the society. It proposes to have but a single fee for membership in the county and state organization (which is the rule of the Penn-

sylvania State Medical Association), and to collect their dues as "any other bill due the society or an individual, would be collected." To take upon itself the duty of defending all suits for malpractice, and all suits in any way affecting the professional status of its members when unjustly brought, and take cognizance of, and prosecute violations of, the medical practice act, or the laws of public health. It is also thinking of providing a fund for the care of the aged among its members when necessary.

\* \* \*

The *National Hospital Record* for August, 1900, gives the place of honor to a paper on "Hospital Management," by Dr. W. L. Estes, of South Bethlehem. But the foreman of the printing office evidently cut out the acknowledgment of the *Bulletin* of the American Academy of Medicine, June, 1895, where the article first appeared, being one of the papers read before the Academy of Medicine that year.

Is it the foreman's fault or the proof-readers, that the same omission occurs in the next article—"The Emergency Hospital"—by Dr. Walter L. Pyle, published in the same number?

### LITERATURE NOTES.

BOOKS BY FELLOWS OF THE AMERICAN ACADEMY OF MEDICINE.

**MANUAL OF THE DISEASES OF THE EYE FOR STUDENTS AND GENERAL PRACTITIONERS**, with 243 original illustrations, including 12 colored figures. BY CHARLES H. MAY, M.D. New York: William Wood & Co. 1900. 406 pp.

More skill is needed in writing a manual than in preparing a treatise, and Dr. May is to be congratulated for the clearness and conciseness of this little volume. His experience in teaching ophthalmology at Columbia, has helped him to make the proper selection of the material, and to devote the relative amount of space to each topic judiciously. The book is worth the reading.

**THE AMERICAN ILLUSTRATED MEDICAL DICTIONARY**, a new and complete dictionary of the terms used in medicine, surgery, dentistry, pharmacy, chemistry, and the kindred branches, with their pronunciation, derivation, and definition. BY W. A. NEWMAN DORLAND, A.M., M.D. Philadelphia and London: W. B. Saunders & Company. 1900. pp. 770. Flexible leather, \$4.50. With thumb index, \$5.00.

We have not tested this newest claimant to lexicographic

honors, except for medical (and surgical) terms, and here it has proved very satisfactory. One advantage is its size. It can lie on one's table, be lifted, and easily held in one hand while consulting it, and placed on the table again without fatigue, while it is large enough to contain the words one wishes to find in the course of his reading. The publisher has ably seconded the efforts of the compiler, and the result is a book for the issuers to be proud of, and the purchasers to take comfort in.

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REPORT OF THE COMMISSIONER OF EDUCATION FOR THE YEAR 1898-99.  
Vol. I. pp. xcii + 1248. Washington : Government Printing Office, 1900.

On page 33, the following items of interest are to be found :

*Medical Inspection.*—The London School Board has agreed upon the appointment for one year, of two medical practitioners (one a man and one a woman) to take charge of the work in connection with the examination of defective children, and children alleged to be defective, each to give an equivalent of at least half time, at a salary in each case not exceeding \$250 per annum, and that the woman practitioner shall also, as a part of her duties, examine and report to the board as to female applicants who may desire to be examined by her, and that the "general purposes" committee be authorized to nominate two persons for appointment by the board accordingly.

*The London School Nurses' Society.*—The London School Nurses' Society has been formed with the object of supplying visiting nurses to elementary schools in poor districts. Already these nurses visit some of the poorest schools, and attend to the small ills of these scholars, such as sore heels and inflamed eyes. Excellent results follow their ministrations. Each is able to visit five schools in a day, and see about 100 children, who are sent to her, one by one by the teachers.

*Schools for the Blind and Deaf.*—The official report with regard to the schools for the blind and deaf, under the "Elementary education (blind and deaf children) Act, 1893," for the year ending August 31, 1897, states that the number of schools recognized by the department, increased during the year, from 91 to 95, and the accommodation provided from 1,476 to 1,616 for blind children, and from 3,004 to 3,123 for deaf children. The number of scholars on the books of these schools increased in the case of blind scholars from 1,226 to 1,280, and in the case of deaf scholars, from 2,459 to 2,566. The number of blind or deaf scholars boarded out under the superintendence of boarding-out committees, increased from 16 to 25. The total grants paid for the year under the minutes of April 2, 1894, increased from £15,629 to £16,727, 7s. 6d. A satisfactory advance was made during the period in question, both in the work of supplying places in certified schools (that is, schools accredited by the department) for these classes of

children, and also in the efficiency of the instruction and training given in the schools.

The Hon. John Eaton contributes a very interesting chapter on the Royal Normal College for the Blind in London, as are also the articles on "Minor Mental Abnormalities in Children as Occasioned by Certain Erroneous School Methods," by Dr. W. O. Krohn, psychologist, Illinois Eastern Hospital, and "Military Drill in the Schools of the United States," by Chancellor MacCracken, of New York University, but lack of space forbids a review. The rest of the volume, while of value, does not include the medical element, and is left to other journals for notice.

DIE PHYSIOLOGISCH-CHEMISCHEN GRUNDLAGEN DER SPERMINTHEORIE NEBST KLINISCHEN MATERIAL ZUR THERAPEUTISCHEN VERWENDUNG DES SPERMIMUM—POEHL. (ÜBERSETZ AUS DEM RUSSISCHEN.) St. Petersburg: A. Wienecke. 1898. pp. 330.

This is a contribution to our knowledge of organotherapeutics, and of use to those who are at work in this field of research.

Publications from the University of the State of New York.

- I. COLLEGE DEPARTMENT. SECOND ANNUAL REPORT. 1899. Vol. I. Report of Director. PROFESSIONAL EXAMINATION PAPERS. 1899. Colleges. Cloth. pp. 278. Albany, 1900.
- II. HIGH SCHOOL DEPARTMENT. SIXTH ANNUAL REPORT. 1898. 2 Academies. Cloth. pp. 883-1616. Albany, 1899.
- III. HOME EDUCATION BULLETIN, No. 30. July, 1899. Summer schools. Paper. pp. 44. Price, 5 cents.
- IV. HOME EDUCATION BULLETIN, No. 31. May, 1900. Public Libraries and Popular Education. Paper. pp. 271. Price, 40 cents.

I. During 1899, the following professional licenses were issued as a result of state examinations:

670 physicians—152 of these claim to be homeopaths, and 19 eclectics.

182 dentists.

12 veterinary surgeons.

8 certified public accountants.

Under exemption in the professional laws, the regents have also licensed during the year: 138 physicians, 39 dentists, 11 veterinary surgeons, and 1 certified public accountant. New

York has 15 medical schools, with an aggregate faculty of 1,025, and 2,335 students. 637 degrees were granted.

The report gives the tabulated results of the examinations, which have already appeared in the Bulletin.

II. Tabulates valuable statistics of academies.

III. Included in this pamphlet, with a description of the summer schools in New York, is a list of the more important summer schools in the other states. It is a valuable guide to any one seeking information on these schools.

IV. This monograph of Prof. Adams, of Johns Hopkins, is a handsomely illustrated popular account of the public libraries in the United States, and methods employed to make them instruments for popular education. In his preface, Prof. Adams quotes Thoreau: "It is time we had uncommon schools," and the monograph treats of some varieties of these.

Late in 1851, Lindsay and Blakiston, the predecessors of P. Blakiston's Son & Co., issued a physician's visiting list for the year 1852, and again for the following years, year by year, until many a physician considered Lindsay and Blakiston's List one of the essentials for their practice. The firm has issued the 50th volume—that for 1901; the same, but far from the same. Each year the book has been carefully scrutinized, and any possible improvements introduced. Thus while it is the same old friend to those who have used it for years, it is fitted for the use of the physician just entering upon practice, because it is up to date.

# BULLETIN

OF THE

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THE AMERICAN ACADEMY OF MEDICINE is not responsible for the sentiments expressed in any paper or address published in the BULLETIN.

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### AMERICAN MEDICAL COLLEGES, AND THEIR BETTERMENT.<sup>1</sup>

BY PARKS RITCHIE, M.D., of St. Paul, Dean of the College of Medicine and Surgery,  
University of Minnesota.

GENTLEMEN: It is indeed a high compliment that the new dean of one of our younger university medical schools should be chosen to preside over this, the *largest* representative body of medical teachers in the world!

In assuming the functions of the presiding officer I shall endeavor impartially to administer "advice, correction, instruction, and reproof."

As the business man at the close of the year takes an inventory of stock, notes the results of his enterprise, and examines the value of his business methods, may we not profitably consider the progress we have made, observe and correct our errors, and take further steps in the direction of our ideals? It seems to me the time has come when we as an association should ascertain more definitely the status of our membership, and be more exacting in our demands for proofs of fitness from future applicants. I am advised that the custom has prevailed of accepting without question the printed college catalogue as evidence of entrance requirements, equipment and facilities for laboratory and clinical teaching, while it is a fact well-known to all of us,

<sup>1</sup> President's address before the Association of American Medical Colleges, Atlantic City, June 4, 1900.

that many of the printed announcements are misleading and should be accepted only in the "Pickwickian sense."

By the report of the supervisor of the college department of the University of New York we learn there are 122 regular medical schools in the United States, all eligible to membership in this body provided they come within the limits of our minimum requirements. That the needs of our country justify the existence of such an army of medical schools, is unworthy of discussion. That a majority of them fall below the standard of our minimum requirements, their laboratories a farce, and their clinic instruction a "delusion and a snare," is equally obvious. The lax and unequal laws in the many states of our union have made it possible in some localities for a body of medical men to combine and declare themselves a medical college, regardless of the fact that few if any of them are teachers either by training or experience.

The present status of medical education demands laboratories with modern equipment, and teachers with scientific attainments, who should devote their entire time to the work. This means a large outlay of money to establish and maintain the laboratories, and for the payment of salaries. It is an outrage to demand of a medical practitioner that he should devote enough of his time and talent to meet the necessities of his work without an adequate remuneration. The day has passed when the instructor can impart such knowledge through the medium of the recitation and the didactic lecture alone. How then can this little coterie of pseudo-scientists secure students, and through them the necessary income to keep their machinery in motion? Only by the issuance of announcements of great promise and small performance (which are accepted by this body as credentials for membership), by matriculating any clown "who has the price," and by small fees for instruction that would be dear at any figure.

I sincerely hope that future applicants for membership in this association will be required to present convincing evidence that they have the ability to do and are doing satisfactory work, and that the plan of admitting a weak school to effect its reformation,—which one of my good friends is pleased to call our "missionary method,"—shall forever be abandoned.



One hundred dollars per annum is, in my opinion, the smallest sum for which adequate instruction can be given. In the report of the New York College Department already referred to, some very interesting figures are given in regard to the expense account. One college in Iowa produces doctors for the small sum of \$33.00 per annum, while another in the same state expends \$250.00. The three great schools of New York City average about \$175.00 annually, and the university medical schools about \$150.00. An alleged college in a small city south of the Mason and Dixon line announces 531 matriculants with a net income of \$15,000 over all disbursements, and "makes doctors while you wait" at the modest price of \$27.73! A small school in New England which, I am told, does not issue diplomas, expends \$16.00, while another in a neighboring state makes the preposterous claim that they "burn money" to the extent of \$528.00 annually for each student. This report justifies the old adage, "there is nothing so unreliable as figures, except facts!"

The printed report of your Committee on the Condition of Medical Education is worthy of your careful consideration. This committee was continued, and will report the results of its labors at our executive meeting to-night. From this report will be learned the poverty and instability of the entrance requirements of some of our schools. Seven reported, and doubtless others unreported, require a *common school education*, which is practically no education, to fit the individual for the arduous duties and responsibilities of a learned profession. A teacher's certificate of the first or any grade has no definite value, and should be considered worthless unless issued by a state normal board, or a state high school board.

The absurd paragraph in Section 3, Article 3, of the constitution admitting students conditioned in one or *more* branches should be amended so as to state specifically one, two, or even three conditions, and thus prevent the entrance of a student with no passing marks whatever. From the report of our committee you will note that more than one-third of our membership admits students to advanced standing from evidence of attendance only, regardless of whether they show any knowledge of the subject

taught. We may reasonably assume that a larger number who did not so frankly confess their sins are equally guilty. Technically, by the loose construction of our constitution this laxity is permissible, but it is unworthy the membership of an association whose battle-cry is "the advancement of medical education."

There is at present such a wide gulf between our best and poorest schools that general reciprocity for advanced standing is impossible. By existing rules we are permitted to accept certificates from colleges of equal merit with our own, but we should be certain that an equivalent of work has been performed. Some good schools earnestly striving to do the best work have weak spots in their armor, certain departments which are not up to the standard, and which should not be permitted to soar with the pinions of their colleagues. The school which I have the honor to represent demands for advanced standing official credentials not only of attendance and passing marks, but in addition examination *if deemed necessary* by the professor in charge of each department. He is the best judge of the knowledge and fitness of the applicant, and the newcomer has no right to expect advanced standing with a lesser degree of excellence than is required of the students of our own school.

Last year at Columbus under a misapprehension the association defeated an amendment to our constitution specifying the number of hours devoted to instruction. As the rule may now be interpreted a school may teach one hour a day and still fulfil the requirements of the law. It may be located so remotely from centers of population that it is manifestly impossible to secure the clinical facilities necessary to properly equip the student for his professional career.

The Committee on Condition of Medical Education will recommend that the four years' course demanded must embrace at least 3,300 hours of actual work in the college, of which 500 or more hours shall be laboratory, and 750 or more hours of clinical teaching. I warmly endorse this amendment and urge its adoption.

I am keenly alive to the fact that any proposition to increase our entrance requirements for students will meet with active

opposition. To make a high school diploma or its equivalent of knowledge under proper examination a minimum requirement is essential to our continued usefulness and prosperity. Some members plaintively assert that to accept such a rule would mean suicide. To such faint hearts I would say that it is better to die with a bold front fighting in a just cause, than to be ignominiously decapitated by the judicial ax of the examining boards.

This is no idle threat. The adoption last June by the Federation of State Examining and Licensing Boards of the report of its Committee on Minimum Standards for Admission to Medical Colleges (see BULLETIN OF THE AMERICAN ACADEMY OF MEDICINE, August, 1899), compels us to advance practically to that plane. Though the federation is not a legal body its units are, and a large majority of the state boards will accept and enforce its provisions.

In a recent editorial the *Philadelphia Medical Journal* suggests that the state licensing boards which have under the law the power to accept or reject the diplomas of questionable schools, should officially examine into the teaching facilities of the schools within their state jurisdiction, to determine whether their work agrees with their announcements, whether their laboratories are in fact or in fancy, and whether their clinical instruction is sufficient to justify their existence. This is practical, and *legal* in many states. If this clearing house method is adopted by the examining boards the problem is solved. By organized and uniform inspection they will be enabled to sift the wheat from the chaff, and compel medical pretenders to reform or quit the field which they disgrace. Last year, after hearing and discussing the admirable paper of Dr. Dodson on "The Elective System in Medical Education," a committee was appointed to investigate the subject further and to report at this meeting.

The art and science of medicine has developed to such a degree, the seven original chairs have been subdivided and multiplied into the many specialties in medicine and surgery, until the student is confounded with the immensity and complexity of the subjects with which he has to contend. Primarily our standards are established for the pupils of minimum ability acceptable to us. Many barely reach the line, and yet become worthy

and satisfactory practitioners. Others, more richly endowed with mental gifts aspire to a higher plane, and their wishes should be gratified. This can be accomplished by the intelligent application of the elective system. The members of the committee are enthusiasts and may, probably will, propose some radical changes in our educational methods. The plan is now in active and successful operation in some of our foremost schools, and appeals strongly to the intelligence of our association.

The degree of M.D., should be a mark of distinction and scholarly attainment. At the present time over 80 per cent. of the faculty of one of our oldest and best schools have no distinguishing mark above the title of the new M.D., from our poorest three-year colleges. As in our academic departments the bachelor leads to the doctor's or master's degree, and in Great Britain the licentiate precedes the fellow, so we too should establish a bachelor's degree, and reserve M.D., for those who earn it by scientific research and lofty endeavor.

Finally, if in my strictures I have wounded the sensibilities of any representative present, please bear in mind the fact that "we may hate the sin and love the sinner." We are united in the avowed purpose of elevating the standard of medical education, and with it our profession to a higher and nobler plane, and to render the possession of a medical degree a testimonial of the highest type of scientific attainment. If any school in our membership is below our standard, let it at once, regardless of cost, repair the defect or offer its resignation. Let us admit no school which does not offer the most positive evidence of its ability to conform to the rules of our Association, and at the same time aspires to better work in the near future. Let us increase our entrance requirements and broaden our curriculum as speedily as may be compatible with our environment. To use a commercial phrase, let our success be measured by the quality rather than by the quantity of the goods. Our advances in the past few years have been marvelous, and our possibilities are illimitable. The true scientific spirit is not lacking, and if we can eliminate the canker of commercialism a glorious future is ours. Let us rejoice in the good work accomplished, and resolve that the United States of America, the most prosperous and progressive nation of the earth, will at an early day, through the unselfish, earnest, and efficient scientific work of its medical faculties, remove the stigma which in Europe now attaches to "The American Doctor."

## THE USE OF CLINIC RECORDS IN TEACHING MEDICINE.<sup>1</sup>

BY W. B. CANNON, A. M., Boston, Student Harvard Medical School, Instructor in Zoology, Harvard University.

"And I said of medicine, that this is an art which considers the constitution of the patient, and has principles of action and reasons in each case." These words from Plato's "Gorgias" summarize concisely the work of the physician. He practises an art. This art requires careful and thorough examination of his patient, and wise and skilful diagnosis and treatment of the conditions of his patient. The problem confronting teachers of medicine, therefore, is that of training young men to be skilful practitioners of the medical art; to observe closely, and to judge and act with reason in their treatment of disordered individuals.

Now, in preparing a novice for the practice of any art, the reasonable method is that which requires him to do the sort of work demanded by his art when he follows it seriously and without guidance. The student of mechanics learns drafting and the touch of tools in the shop; the painter accumulates power from every object he portrays; the speaker becomes ready-witted and quick-tongued only by repeated speaking. In medicine, too, there can be no exception to this rule that we learn to do by doing, for only thus does assurance come; only thus are mistakes made that impress upon the mind the proper way.

The physician's work then is twofold: first the observation, and later the rational judgment of his data. In the discussion which follows, the training of the powers of observation will not be considered. Such training is so generally recognized as fundamental in its importance that there is little danger of its being neglected. It is the second part of the physician's work—the judgment of his data and the application of rational treatment to cases—which is to be further considered.

This matter of judgment and treatment requires two sorts of mental equipment, an accurate memory of facts and principles,

<sup>1</sup> Read before the Association of American Medical Colleges, Atlantic City, June 4, 1900.

and an ability to bring these facts and principles to bear on special cases. In training students to accurate knowledge and wise action the methods customarily used in medical schools have been the methods of didactic lectures and of recitations. As recent discussion has shown, there are many objections which can be brought against each of these ways of teaching medicine. The didactic lecture seldom presents more than the student can find in the newest text-book,—the source to which he turns naturally, rather than to uncertain lecture notes. The student therefore at lectures is spending time in passively listening to another's information, while he might be acquiring this information by his own active energies. The time spent at lectures, then, is not spent to the best advantage. Furthermore the lecture system has the serious fault of allowing a neglect of study during a large portion of the year, and of encouraging a cramming for examinations at the end. Knowledge which is to persist cannot be gained in this manner, for time is needed for the new ideas to become intimate with those already at home in the mind.

In favor of the method of recitations, more may be said. The student must prepare day by day for his exercises, and this requirement not only prevents the shirking of study, which is possible when lectures alone are used in teaching, but the daily preparation also makes the student thoroughly acquainted with his authorities. At the recitations the student has the opportunity to correct false impressions and to fix especially in memory the more essential points of the topic studied. What new matter of interest the instructor may present, falls now into a prepared mind and finds a place there. Thus by association and repetition the facts of medicine become more and more the permanent possession of the student.

Although recitations are in some respects more valuable than lectures, they yet share with the lectures certain important failings. In the first place, diseases in text-books like diseases in lectures are abstractions; they are descriptions of averages or types without the interest provided by the sense of real conditions. Study of text-books and lecture notes is accordingly a dreary process of laborious memorizing, a condition especially

unfit and absurd in medicine which deals so intimately with vital interesting issues.

By far the most important objection, however, to be lodged against the prevailing methods of instruction is their real inefficiency as a means of mental training for medical work. It is admitted that medicine is an art, it is admitted that the best means of learning to practise an art is by actual practice with opportunity for correcting mistakes, it is admitted that a large part of a physician's work lies in judging correctly medical data and meeting the problems presented by human needs. Now the most powerful destructive part of the present argument is brought to bear just at this point, for neither the lecture system nor the recitation requires of the student intelligent thought on practical problems, or the exercise of reasoned judgment, or the wise handling of the difficulties of a given case. The methods used do not demand of the student what practice will demand of him as a physician; they are not, therefore, a satisfactory means of teaching the art of medical practice.

The argument, however, has its constructive side. Is there any better way of training students of medicine for their work than has been provided in the schools? About two years ago it occurred to me that for learning the practice of medicine a study of clinic records would serve as a most immediate substitute for the actual care of patients; for in clinic records all the data to be judged and acted upon are present in every instructive variation of every sort of disease. The plan of giving students printed records of cases was brought forward last January. It contemplated a detailed analysis of the data, a consideration of the differential diagnosis, the principles of prognosis in the case, and the rational treatment. The students after having studied the case were to come to a conference with an instructor, and in the conference all the points in the particular problem should be discussed. Since the scheme was broached it has been used in three courses in the Harvard Medical School, and also in the University of Pennsylvania, and in the University of Minnesota. My own observations of the working of the method, which I now present, are confined to the exercises con-

ducted during the last four months by Dr. Richard C. Cabot for the senior class at the Harvard Medical School. The trial has not only confirmed the original claims made for the method, but has revealed new unforeseen features of great value.

The first claim made for the method was that by its use the objectionable features of the didactic lectures are avoided. The student does not spend his time duplicating his reading matter by lecture notes to be set aside for later study; he is learning his facts gradually from day to day, by actually applying them to his work. Instead of depending on his uncertain records of lectures, he is training himself by practical experience to use his books just as later he may have to use them in reference to his patients. And as for the pernicious method of learning medicine by cramming for examinations, the very nature of the study of cases forbids it.

The power of arousing interest and enthusiasm among the students was a second claim made for the method. This claim has been abundantly confirmed. The printed record of an actual case gives a center of interest. As one student said, "I used to sit down and read twenty pages of 'Practice' and be sleepy: but there is an excitement in hunting down the diagnosis of a case and in getting ready to stand by my idea of the treatment of it, that keeps me lively." The exercises at which these cases have been discussed have had the largest regular attendance of all clinic exercises of this last half of the senior year. The students argue and discuss the case together in their rooms, they come to the conference and dispute and question not only one another but also their instructor; they are kept alert and keen-minded throughout the exercise. Impressions made under such conditions, when the attention is naturally sharp and eager are deep and lasting. It is the particular patient, the concrete instance, that gives body and form to textbook abstractions, holds the attention, and stimulates the reasoning power. Neither the lecture nor the recitation stirs enthusiasm; the case system, however, is on record as having accomplished this result most successfully.

The most important virtue of the case system, however, is its great value in drilling the mind of the student to meet intel-



ligerly the difficulties of practice. With the usual methods of instruction, skill in logical thinking, which makes knowledge a power, is not infrequently sacrificed or impaired by the strained effort at accumulating the very knowledge to be used. How many students will exercise independent judgment or do critical reading while preparing for a recitation a dozen pages of any standard work on practice? To be sure, in some instances, such preparation develops an extraordinary ability to memorize, but the mind is thereby only burdened with an unwieldy multitude of facts, while there is not the slightest necessity for any effort at real intellectual construction. Instead, let the students have a number of cases with similar symptoms, but with peculiarities and complications, and can any student fail to puzzle over them and study them? And having studied them, will not the conference at which his diagnosis and treatment are either confirmed or questioned mean more to him and produce a more lasting impression than any lecture? The clinics train the medical student in observation; nothing at present requires him to look carefully on all sides of many cases, to think clearly and accurately, or to have reasons for his conclusions. Are not these powers among the most indispensable qualities of a physician? If so, the method bringing these qualities into constant use and discipline, and at the same time demanding the most thorough and precise knowledge is certainly that best adapted for the study of medicine.

And during the past four months, nothing has been more interesting than the growth among the students in the power to grasp quickly the essential needs of the situation. "Conference maketh the ready man,"—yet there is nothing in listening to lectures that tends in any way to develop this valuable trait in the medical student. Another matter which the students have been learning is the judgment of clinic data, and the estimation of the value of evidence. In the text-books, symptom after symptom is written down without indication of importance or weight. In considering a particular case and discriminating between the various diseases it might represent, the students first begin to see what may be called the perspective of symptoms; they are learning to distinguish between the big and the

little, the important and the unimportant, the common features and the more unique.

Among the new unforeseen merits characterizing the case method, is the discovery that the particular instance may be stated so vividly that it will leave on the mind a picture quite as definite and lasting as the sight of a real patient. This virtue suggests the especial use of the method in teaching the management of acute urgent conditions, such as alarming hemorrhages, the agonizing distress of angina pectoris, and the cutting, stabbing pains of biliary colic, conditions which students never see in the hospitals, and which they may be called upon at any time to treat. A simple case recently given out in class for discussion will illustrate the point.

"A middle-aged man was seen writhing in intense pain referred to the epigastrium. Vomiting of greenish fluid took place; there were loose discharges from the bowels, small in amount. This state of things lasted with only short remissions for two days, until a small dose of morphia, which, for special reasons, had hitherto been withheld though asked for, was administered, after which there was complete relief for many days. The pupils were dilated, the pulse regular and of normal character. Nothing special had been eaten or drunk to cause irritation of the stomach. The abdominal walls were neither distended nor retracted, no intraabdominal tumor was to be detected, nor was there excessive tenderness on pressure. It was afterwards learned that he had had several such attacks, that for many months or years his legs had been weak, that he had had neuralgia and numbness in them, and that he stumbled in walking and staggered with his eyes shut."

Here we have a real and vivid description of agastric crisis in tabes, made so striking that it leaves a deep and permanent impression in memory.

This case also illustrated another of the unexpected features of the case method, that of showing to the students themselves and also to their instructors what they do not know and wherein their knowledge is inaccurate. The question was asked: What further examination would you make? This one question alone showed to about one-half the students present, that they were entirely wrong in their memory of the Argyl-Robertson pupil, and the question further showed that a large number of the graduating class believed that the knee-jerk was ordinarily increased in tabes. These are merely instances of the state of

affairs among the students which the method is bringing to light. They are going through their last year in the school, ignorant of their ignorance and complacent in their false knowledge until meeting the actual conditions of real cases shows them their deficiencies. It is not to be expected that the lecture system will reveal to students their faults. How can it do so? The students sit passively listening to their instructor; the instructor does not know if they have understood, or learned, or are remembering; his chief knowledge of the students is derived from what they write in an examination book after cramming their minds for a few weeks with what he has told them during a whole school year. In the complexity of medicine what can such a test show?

Another merit which the actual employment of the case system has developed, is the training which students get in being required to adapt themselves to actual difficulties in practice. The first case presented under the method was, at the time, in the private practice of the instructor, Dr. G. L. Walton; the diagnosis of cerebral hemorrhage was made by the students and the probable site of the hemorrhage located. The instructor then put the practical questions which he had to answer for the family: Will you allow the patient to sit up in bed? Why will you forbid him to sit up? What will you give him to eat? Does he need drugs? What will you do for him? What is the prognosis with such a past history? His wife is a nervous imaginative woman who will worry herself to a wreck if you are not careful. What will you tell her about her husband? All these questions the students were compelled to answer, and give reasons for answering as they did.

Now does it not seem reasonable to suppose that by requiring such exercise of thought, and discrimination and circumspection of all the data, students are trained to greater power in studying their authorities, in increasing and applying their knowledge, and in using their judgment than could possibly be the result of sitting idly listening to lectures?

Finally, I wish to state from a student's point of view, the apparently proper place for such a method in a medical curriculum. In the argument for the adoption of the study of

case histories in medicine, a sharp distinction was drawn between the two attitudes of the physician. His first work is that of the observer,—he must secure his data thoroughly and skilfully, and this work is fundamental. But there is the other attitude of the physician, that of the careful judge who regards his data on all sides, relates it to his previous knowledge, makes his differential diagnosis, has his reasons for his prognosis, and applies his rational treatment. Now it is in just this central position between the scientific part of medical training, which provides principles and theories, and the practical work of dealing with actual problems, that the study of data provided in printed cases will have its greatest value. At the clinics, the students are drilled by their corrected efforts to be thorough and discriminating in their observation and thus to secure reliable clinic data; the emphasis here is on observation. At the clinics, however, the time is not sufficient to consider these cases in all their details. This defect, the case method makes good; for with the printed records in their hands, the students are drilled by their corrected efforts to judge with care exactly the same sort of reliable data which their own observation has secured. The cases can be so arranged as to develop naturally the relations of the group of diseases under consideration, and the similar diseases between which distinction must be made. To these cases the students can bring all their knowledge of anatomy, physiology, pathology and therapeutics, and these subjects which are now more like separate packets in the mind than related parts of a single system, take on a new importance and interest. The students then fix their knowledge by unifying it, by bringing the new information into relation with that already secured. They learn the use of their authorities as books of reference; they must study their matter from day to day, for judgment and reasoning, and skill in analysis cannot be crammed in the few weeks before an examination; and finally all this discipline has a direct value for the bedside instruction, pointing out to the student what to watch for, showing him the importance of complete examination, and teaching him how to interpret observations as they are made.

It seems to me that such a plan presents conditions worthy of

an instructor with the widest knowledge of both medical science and medical practice, one who is keen and ready and accurate. In his free intercourse with the students in the conferences, he occupies a position of far greater importance as a personal factor than can be possible in formal lectures and recitations, in ensuring the knowledge and skill, and in determining the ideals of young men who are looking forward to the work of the physician.

#### DISCUSSION.

Dr. John Chase, University of Colorado :

I have been particularly interested in this paper. I have found for many years that the principal difficulty in pounding things into the students' heads is to keep them awake. I have always guaranteed my students that they would know something at the end of the year in my course if I could keep them awake for nine months. I have made use of the same plan as Dr. Cannon, although I have not had the case records printed. I have frequently presented a case, going through the diagnosis and then change some of the symptoms, and said, "What will you do now?" "How answer questions the family will ask?" "What will you do as far as the sanitary regulations of your city are concerned?" I know how it was when I studied medicine, when I was interested I was wide awake, but when the course was dull and uninteresting I simply could not bring my faculties to bear on the subject on hand for any length of time.

Dr. J. W. Holland, Jefferson Medical College :

There is one significant fact which has not been mentioned. The originator of the case system was a student, an undergraduate. A series of papers were published in the *Boston Medical Journal* by him. He was a law student and he mentioned the case records which they used, the law science being a book science. A library is an important part of the professional man's furniture, but this undergraduate found that the law students were deeply interested in their cases, and were making great progress in reasoning, in lucidity of their thoughts, and he broached the question why this method should not be used in medicine. He recognized the deficiencies in our own methods. Of course the ideal method is to work up the living case, permitting the student to watch the progress of the disease, the influence of the remedies upon it, and to read it up in his text-book. That represents an ideal state of things, but I think no school has succeeded by trusting cases to the student and allowing him to make experiments. In lieu of that, it seems to me that the method presented is a most excellent one. The student is allowed to read up and is furnished with some actual case taken from the clinic record of the hospital or dispensary and putting it to the student as a problem. Unless it is presented as a problem to be worked out, his brain will not work with any effect.

As to the students recognizing the real meaning of the knee reflex, I suppose there is not a man here to-day but what at one time did not know what that meant. The student's mind does not go so far; he only knows the name. I think this method is splendid and I sincerely hope that it will succeed.

Dr. Bayard Holmes, Chicago College of Physicians and Surgeons :

I do not like to speak on this subject and say what I want to say. In 1892 I published, in the *Philadelphia Medical News*, an article under a rather long and clumsy title; it was "Is it Desirable and Practical to Teach Medical Students the Methods of Medical Library Research?" I described how I tried to teach the student the subject I had in hand by requiring them to look up cases of a particular kind in the literature and make abstracts of them, bring them in and discuss them before the class. At that time somebody in the legal profession called my attention to the fact that there was a system of teaching law called the "case system." The books for this system are usually entitled "Material for the Study of Contracts," "Material for the Study of Torts," etc.

I investigated the method and found that it was used in several law schools. Then I tried the experiment in a more serious manner and wrote an article, which was published about the year 1894-95, entitled "The Library Method of Teaching Surgery." This article was published in the *Journal of the American Medical Association*. I do not want to think for a moment that the gentlemen are ignorant of these two journals or of their contents. I then began to teach surgery in that way and I still continue it, although I do not use it to the exclusion of any other method, as no method can be used exclusively. They all have some desirable feature.

Dr. Dudley S. Reynolds, Hospital College of Medicine :

I wish to bear testimony to the proof of the last speaker's statements. In a meeting of the College Association in Atlanta, Georgia, in 1896, Dr. Holmes referred to his method of instruction. He stated that he had at that time just completed the study of a case of osteomyelitis, in which the class by sections, had been compelled to read up everything on the subject, then examine the patient and suggest the mode of treatment.

Dr. Wm. L. Wills, College of Medicine, University of Southern California :

I think the system in vogue in schools at the present time where the clinic method is completely divorced from the didactic or lecture system, is a mistake. Twenty years ago in the University of Pennsylvania we were not allowed to go to the clinics at all until our senior year. Instead of studying records why cannot you study cases? When I went to college, Leidy lectured immediately after dinner. He was a good man, but an exceedingly tiresome lecturer, and he invariably put us to sleep. He either ought to have

brought in a case to us and talked about that or his hour ought to have come earlier in the day. This last year I have been giving the first-year men (although I was not really allowed to do it) a surgical clinic from the dispensary. Although the students are not allowed to go to the regular clinics, I took it upon myself to give them a special clinic on Saturday afternoon in order to keep up their interest. Much to my satisfaction, those boys derived considerable benefit from this clinic.

Dr. W. J. Means, Ohio Medical University :

I have been very much interested in the discussion of this important question, and I am pleased to see the progress in teaching methods in our medical colleges. The case method, as suggested by Dr. Cannon, is a step in the right direction. I presume that most of you are familiar with the recitation plan as conducted at our school. We claim to be the pioneers in that method of teaching. The lecture system was abolished almost entirely, the recitation plan adopted, and the case method introduced to a certain extent. Our professor of obstetrics has used the case method for about two years. A section of his class is required to attend a case of obstetrics and make a complete record of it. That record is then taken into the classroom and made the subject of the recitation. I have adopted this plan in teaching surgery, but I have used instead of the case the outline of a certain subject, the students being expected to familiarize themselves with the subject, getting their information from any reliable source. Then cases are taken up in order to fix the important points of the subject in hand on the student's mind. I am not ready to accept the case plan primarily. I believe that we might as well say that we could apply the fundamental principles in mathematics to the more complex problems without previous study. A foundation is necessary and the student must familiarize himself more or less with some textbook before he can take up the case method exclusively. I do approve of it, however, in the junior and senior years, and it ought to be used to a much greater extent in our medical colleges than it has been heretofore.

## METHODS OF CLINICAL INSTRUCTION AND THE MANAGEMENT OF CLINICS.<sup>1</sup>

By F. C. Horz, M.D., Chicago, Professor of Ophthalmology and Otology in Rush Medical College, in affiliation with the Chicago University.

The end of all medical education is to prepare the student for the practice of medicine on scientific principles. Medical schools, therefore, have a twofold task to solve: they must instruct the students in the theory as well as in the practice of medicine; in medical science as well as in the healing art.

The science is taught in the lecture room; the healing art is acquired in the clinic room. The lecture room furnishes the theoretical instructions; the clinic room gives the practical object lessons. The clinic is the medical student's training school for the acquisition of practical experience and the education of those faculties which make the successful physician. Success in practice does not depend so much on book learning as on good observation, thorough examination, manual dexterity, and good judgment in applying our scientific principles to the wants of our patients.

Well prepared by recitation work and didactic lectures the student enters the clinics to find the opportunities of training his senses, especially the sight, hearing, and touch, in the quick recognition of morbid symptoms; of acquiring the habit of making thorough examinations and of exercising great care in making a diagnosis. One-half of the mistakes in practice can be traced to careless examinations and hasty conclusions. I regard it as one of the most essential features of clinic teaching to impress upon the students the paramount importance and necessity never to accept a diagnosis as final until it is supported by all the essential symptoms in the case. As long as there exist any symptoms which do not agree with the supposed nature of the disease we should examine again and again with the utmost care until the mystery is cleared up and our diagnosis is verified or modified. The clear conception of the nature of

<sup>1</sup> Read before the Association of American Medical Colleges, Atlantic City, June 4, 1900.



the disease before us makes us master of the situation ; for it determines at once our plan of therapeutic action and sets clearly before our mind's eye all the possibilities we may encounter and be prepared for in the course of the malady.

Clinic instruction, therefore, first of all things, should strive to educate the student in the art of reading and interpreting symptoms correctly—to become a good diagnostician; and in the art of adapting the scientific principles of therapeutics to the conditions of the patient—to become a successful therapist. To this end it is necessary that in the course of his clinic attendance the student shall become acquainted at least with all the most important diseases and the various ways in which they may manifest themselves in different individuals.

It goes without saying that this cannot be done without abundant clinic material. Any medical school which has not a well frequented dispensary, and a well filled hospital from which to select the proper cases for the clinic object lessons, does not meet the demands of modern medical education. But how about those colleges which control an abundance of clinic material ? Are their clinics so managed as to make the best use of the material for the ends to be attained ? I believe I voice the sentiment of every progressive clinic teacher when I say the methods of clinic instruction prevailing in our colleges are obsolete, inadequate, and faulty, and a thorough reformation in accordance with modern ideas of medical teaching is urgently needed. In my opinion the chief faults of the present system are : 1, That the clinic classes are too large ; and 2, that the clinics in the various departments are too few and far between.

If the main object of clinics is to let the students study disease-pictures from life, to give them object lessons, demonstrations *ad oculos*, it is plain this purpose cannot be effectually carried out before a very large class of students, because the student cannot witness the demonstrations and observe the symptoms unless he sits within easy range of the patient. But the custom still prevails to give the clinics to the whole senior class or even to seniors and juniors together, irrespective of numbers, in a large amphitheater where the students are perched upon rows of seats like the spectators in the gallery of a theater. And just as these

cannot see the facial expressions of the actors on the stage, so the students cannot perceive the symptoms of the patient in the arena. Only the fortunate two dozen occupying the front seats really get what they come for to the clinic; the rest only hear what the professor says, and must imagine what he demonstrates. In my clinic I have often seen students in the upper seats use opera-glasses in the vain endeavor to perceive the symptoms of a diseased eye. Now I have read about studying astronomy with an opera-glass, but I do not believe it is a serviceable instrument for studying ophthalmology. The profitable study of clinic ophthalmology requires the close inspection of the diseased eye; and it is physically impossible that more than a dozen students at the same time can see what the teacher is demonstrating. In numerous cases the delicate but important, because pathognomonic, symptoms can be recognized only by focal illumination and cannot be demonstrated to more than about six students at the time. Still by repeating the demonstration several times it is possible to give every student of a class of 40 or 50 a chance to see, without losing too much time with the exhibition of one patient.

Most glaringly apparent becomes the absurdity of giving clinics to large classes in the diseases of the ear, nose, and throat. The entire clinic hour would not be sufficient time for the proper demonstration of one single case, if every student of a large class of over 100 students should (as he ought to) see the morbid condition; for only one student at the time can inspect the ear, nose, or throat.

But even diseases of the skin, medical and surgical cases and operations, cannot be properly taught to an unlimited number of students. This is practically admitted by the teachers themselves when they select for each clinic a so-called clinic staff of 20 or less students who are invited to the front to examine the case and witness the operations. But what of the rest of the class? Is their time well spent by doing nothing but holding down the seats? Truly this seems to me the poorest conceivable method of furnishing your students opportunities to train their senses by self-observations and to gain practical knowledge of diseases by studying their clinic pictures from life.

You may tell me as the students are selected for this clinic staff in regular rotation all students are given an equal chance. This is true; but I ask you to consider how often during the entire session each student will be a member of the staff. Does not his real, rational, and practical clinic instruction shrink down to a few hours; and is not the larger portion of his time spent in the amphitheater to very little purpose? What good can it do the student to listen to the explanatory remarks the professor may apply to the clinic aspect of the case, if he cannot see the case?

From whatever point we may view the amphitheater clinics we must pronounce them a decided failure; they neither satisfy the demands of our time nor the expectations of our students. The construction of costly amphitheatres with a seating capacity for hundreds of students is an injudicious expenditure of large sums of money and valuable space, which would be utilized to far better advantage in the building of a number of clinic rooms, each accommodating about 50 students. This is in my opinion the largest number which should be admitted to a clinic. Whenever the clinic class exceeds this number it should be divided into sections, and the college should provide for the requisite teaching force and the necessary numbers of clinic rooms so that all sections may receive clinic instruction in the same department at the same time. Besides the advantages inherent in the smallness of the class this plan has the additional advantage of offering the students an opportunity to witness the practice, and to absorb the mature experience of several teachers in every department. Let me explain: Suppose there are 150 senior students—they would form three clinic sections and, for instance, three surgical clinics would have to be given at the same hour. At the beginning of the college year Section A would be assigned to Professor A, Section B to Professor B, and Section C to Professor C. After three months Section A would change to Professor B, Section B to Professor C, and Section C to Professor A; and after the expiration of another three months the sections would be shifted again so that Section A would attend Professor C, Section B, Professor A, and Section C, Professor B. This rotation carried out in every department would be exceed-

ingly profitable and interesting to the students, and would also stimulate a friendly rivalry among the teachers to furnish the highest grade of clinic teaching.

2. We all prize the value of clinic experience so highly, because the mental impressions of our own observations are more lastingly preserved and more readily reproduced by our memory than the impressions we carry away from lectures or readings. The careful examination and daily observation under the direction of the teacher of a case of typhoid fever will leave in the mind of the student a more lasting impression and a far clearer conception of the malady than the reading of the most brilliant essays on typhoid fever. Hence, if the clinic is the student's training school where he is to gather a fund of practical knowledge for his future career, it is not sufficient that he is shown a number of patients, but it is of vital importance that he should see these patients repeatedly to observe the changes occurring from time to time in the manifestations of the disease. By these repeated examinations alone can the student gain a thorough knowledge of diseases and learn to recognize them in their various phases and stages. A patient, therefore, should be brought before the class as often as his condition shows a noteworthy change; and as such changes often, especially in acute diseases, occur at short intervals of time it is self-evident that clinics in every department should be given frequently. In the great and important departments of medicine and surgery, including gynecology, clinics should be held every day in the week, and in the special departments of disease of the skin, nose and throat, and eye and ear, at least three times per week.

Do our colleges meet these requirements? some apparently do, inasmuch as their lecture schedules provide for daily clinics at least in medicine and surgery; but on closer examination we find that these clinics are parceled out among several teachers, each giving clinic instruction perhaps twice weekly and each handling a different set of patients. Under this system a patient cannot be reexhibited on any day in the week, but his presentation is limited to the two clinic days of his attending physician or surgeon. If he is shown on Monday and the next clinic of his attending physician occurs on Thursday, he cannot be

brought before the class until that day, no matter what important changes in his condition may take place in the meantime. Though they receive clinic instructions every day the students do not get daily clinics in our meaning of this term, because they are deprived of the opportunity of having the same patient presented to them every day if necessary.

In the special departments the clinic instruction is usually limited to one day in the week. It really seems as though the old idea that practitioners need not know much about diseases of the skin, nose, throat, eye, and ear, is still haunting our college halls; for it requires no arguments to prove that very little can be accomplished under this system. One hour per week! How many cases can be properly demonstrated and explained in one hour? How can the student familiarize himself by his own observations with the progress of a malady if he can see a case but once a week? And what good does it do to have an abundance of clinic material, if the cases cannot be shown for lack of time, and cannot be presented in their fresh and unadulterated state. Suppose the eye clinic is on Monday, and on Tuesday or Wednesday a typical case of acute iritis or glaucoma is received. Now we cannot let the case go without treatment until the next clinic day; and by this time the treatment will have changed the conditions so effectually that from the appearance the case then presents, the student can never get an idea of the original state of the disease. In this way the clinic teacher is seriously handicapped in his work, because he cannot utilize the most important material at the most opportune time.

Another undesirable result of the paucity of clinic hours is that operative cases accumulate during the intervals to such an extent that the clinic is likely to degenerate into an exhibition of operations. It is true the students like to see operations and find such clinics the most interesting and attractive. But are they of great practical value? Do operative cases constitute the majority in a physician's practice? Certainly not. And since medical schools are to educate physicians, and not operators and specialists, the clinics should, first and chiefly, instruct the students in those diseases which they are likely to meet daily in their practice, and should devote less time to operations general

practitioners are not likely to undertake. The proper treatment of a felon or a dislocation is worth more to the future physician than a laparotomy; the proper management of iritis or conjunctivitis is a more useful demonstration than a hundred cataract operations.

To prepare our students successfully for their future career our clinic teaching should be conducted on the following plan :

1. No student should be admitted to the clinic until he has attended a full course of didactic lectures or recitations.
2. The number of attendants at a clinic should not exceed 50.
3. In the departments of medicine and surgery, clinics should be held every day and in the special departments at least three times a week.
4. Students should be called upon in rotation to examine a case, to make the diagnosis, and to suggest the treatment. In other words the student should be placed in the position to use his own power of observation, to put his theoretical knowledge to practical use and to exercise his judgment, just as he will have to do in his future practice.
5. The same patient should be brought before the class as often as his condition shows a material change.
6. The dispensary patients should be utilized for the clinic as much as the hospital cases, to give the students object lessons in the management of the common and little ailments.
7. Under the supervision of the professor and his associates the students should apply dressings, remove foreign bodies, and perform those minor operations which every physician is expected to perform. To have successfully done an operation, no matter how trivial, on the living flesh gives the student a wonderful amount of confidence in his own skill and ability.

The medical colleges which will conduct their clinics on the plan here recommended will soon become the favorite centers of medical education ; for our students are quick in appreciating the advantages of superior teaching and thorough training, and they realize that systematic and thorough clinic instruction is the best foundation upon which they can build up their future practice.

## DISCUSSION.

Dr. Geo. F. Jenkins, Keokuk Medical College :

I simply wish to supplement the excellent paper by mentioning a feature that has not been alluded to by the essayist. Dr. Cannon says that colleges should educate men as practitioners ; as general physicians, and not as specialists. You cannot educate physicians without general hospital training unless you go back to the old methods. The preceptor is an important factor in the teaching of every-day methods. The college should say to the student that unless he can get in with some physician for two years and watch the cases at the bedside with him, he cannot be a general practitioner. The colleges to-day are making a mistake in trying to take the students away from the preceptor. You learn eye and ear work and nose and throat by going into a little class, but the student wants to be taught case-taking in the hospital. He should have one day a week for drills in case-taking, the presentation of cases before the class and be examined on that. He wants his recitation day and two days on didactic work. He wants to go with the preceptor and watch a case from beginning to end. If you have the preceptor to help you, you can make a good general practitioner of the student, but you cannot make a specialist of him. Specialists are made in a different way. Colleges cannot make them, as they must have special training. The idea that used to be in vogue was to see those cases and watch them every day just as he has to see them when he gets out to work for himself. To work with a preceptor gives him two years of work under the training of a man who does that work, and it admirably supplements the work in a medical college. Four years in a medical college and two years with a preceptor will make as good a general practitioner of a man as it is possible to make.

Dr. James W. Holland, Jefferson Medical College :

I have enjoyed the reading of this paper very much. If I was to offer any suggestion in the way of a change it would be along this line; that is, that Professor Hotz, with all due respect to his experience as a teacher, has made his classes too large. It has been my privilege to teach classes of 30 or 40 students in the clinic, and there are just four times too many to get very much benefit from an operation. When the time comes that classes will be divided into small sections of 10 or 12 each, then we will have personal teaching. The students will come in contact with the teacher himself, they can be entrusted with the care of certain steps in the operation, and then they will derive much benefit from the clinic. Judging from the papers read here to-day, I think we are on the right track.

Dr. Dudley S. Reynolds, Hospital College of Medicine, Louisville, Ky. :

After 25 years' experience as a clinic teacher, I find that four students to a patient is as many as I am able to demonstrate to with advantage.

When I take four students with one patient and set them to work under my direction or that of a demonstrator, I feel that I have as many students as can study that case profitably. That is the way I divide my classes. I limit the number of students attending a clinic to the capacity of the hall. I limit the number examining the patient to four for each patient for as long a time as is allowed me for examination, and then with my demonstrators and assistants I attend to the other cases. In that way I have four students taking notes of each case, and during the next quiz hour I devote the quiz of the entire class to those cases which are most interesting and important. I make those gentlemen who get the record answer most of the questions for the benefit of the other gentlemen who miss. If one of the students misses a question, I call on one of the four who took notes to elucidate the case. Then I inquire whether any member of the class has any question to ask about this case. Someone may ask a question and I refer to one of the note-takers for the answer. If he cannot answer the question, I help him out. We have no talk in this except to call the patient and the requisite number of students and the talking is then done by the note-takers and the patient. The balance of the class is sitting there waiting to be called. If they are not called on that clinic day, they will be on the next. All they get during that hour is what they can see and hear from the seats. All the members of the class, except those interviewing the case, are doing nothing during that hour. We estimate from experience that we can use so many students at each clinic day. We call, by alphabetical order, for a clinic assistant who will call the row from A down to such a letter as we may need students to examine cases on that day. The others can remain or leave as they see fit.

I cannot teach everybody in one hour, but I try to teach those I do get at, all I possibly can. On the clinic day no discussion takes place, but on the class day everybody takes part. I believe that method to be more valuable than any other plan I have ever pursued or have seen pursued in other institutions. Mine is essentially a demonstration course, and I believe Dr. Hotz emphasized the fact that nothing could be done without demonstration. The student cannot make a diagram or map of a field of vision without being shown how to do it. He cannot use the ophthalmoscope without being trained in its use. I may have a patient of special interest come a number of times in order to have as many students as possible make charts of the field of vision. In that way I get probably 30 or 40 different charts.

The hour set apart for the quiz is the time devoted to the study of the clinic observations made by the section of the class. In a class of 100, about six or eight patients would be observed by each student in the course of a six months' term. That is about as much as I am able to do. I do not pretend to say that that is enough, but as I have them for two years, and many come back during the vacation term, when the clinics still go on (a great many of the students avail themselves of the opportunity to study patients in the vacation term), I can at least give them what work they do get in the proper way and that is much more to their advantage than to get a whole lot of cases improperly presented. I admit that these methods are crude, but they are the best I have been able to devise for practical purposes.



Dr. J. W. Holland, Jefferson Medical College, Philadelphia, Pa. :

I think Dr. Reynolds' system is an admirable one so far as the corps of students actually engaged in work are concerned. But what about the others? We must provide for a class of 150 and Dr. Reynolds has four students set to work and 146 students are idle. All pedagogic systems teach that the student should be kept busy. What are the 146 going to do during that entire hour? Nothing more than hold down the seats? The methods adopted in many schools is to have these gentlemen enter other clinics. The gentlemen who have considered this question are ophthalmologists and they have considered their subject only. We might have sections of 50 and have three ophthalmologists at work on them at one time. I would certainly not have a class of more than 20. Instead of having three eye men and three eye amphitheaters, why not at that time have classes of 10 or 20 engaged in different clinics, each clinic having its own waiting room and examining room. For instance, let A study the eye; B the ear; C diseases of children; D nose and throat; E the chest; F medicine; G might assist at a surgical operation; another section might study gynecology, and so on. That is the system in use in the institution with which I am connected. We keep the entire class busy at section teaching, and the fourth-year class is engaged almost all day long.

Dr. John C. Oliver, Miami Medical College, Cincinnati, O.:

After considerable observation of clinics in this country and abroad, it has occurred to me that the question to be determined is whether clinics are usually given for the benefit of the student or to impress him with the great ability of the man conducting the clinic. I am convinced that in the majority of cases the attempt is made by the clinician to impress the student with his wonderful ability. His efforts are not directed toward teaching the student what he ought to know.

The most interesting clinic I ever attended was one conducted by Dr. Newman Moore, at St. Bartholomew's Hospital, London. A few students were called down to get the history of the patient, make whatever physical examination was necessary, and then give the result of their findings and diagnosis to the class. If the two gentlemen did not agree on the diagnosis, they were given permission to discuss it before the class. Each member of the class was allowed the privilege of asking questions. It seems to me that the most complete development of cases was brought about by that method. The method takes time, more than is usually allotted to those clinics, but it certainly is an admirable one.

To supplement the remarks of Dr. Hotz in regard to the following up of patients, which undoubtedly is important, it certainly seems to me that there is no better way of doing that than by forming small classes which make the rounds of the hospital ward daily, observing the progress of a case from beginning to end. We have followed this method in our college for several

years, dividing the class into sections of five each. These men will report for six weeks, going through the same course every day. They are given the opportunity of seeing the operation and of following the subsequent history of the same case. This method gives all the students an opportunity to observe a case from beginning to end, thus getting an intelligent interpretation of what they have previously read in their text-books.

Dr. Henry D. Didama, College of Medicine, Syracuse University, Syracuse, N. Y.:

Ten years ago I was at Vienna, and while there I was introduced to Dr. Billroth. He invited me to his clinic, assigning me a seat in front of him, while he was operating. As he spoke good English I could easily understand what he was doing. The students afterward told me that I had an advantage which they never were given. As they sat in the amphitheater, and as Billroth had a habit of speaking through his whiskers, they could not understand what he said. They could not see the operations because of the assistants who wore such long gowns. These students only went to his clinic because it gave them a reputation of having attended a German University. I like the plan suggested here of having four who can see. Four could not see from the seat I occupied at Billroth's clinic.

I do not think the others have any great advantage in being there any more than I think that the balance of Dr. Reynolds' class derived any benefit from being in his clinic and holding down their seats. I do not like that word because whoever is in the presence of Dr. Reynolds for one hour is deriving some benefit, no matter whether he sees or hears anything or not.

Dr. W. H. Earles, Milwaukee Medical College, Milwaukee, Wis. :

It is evident that we are passing through a stage of active revolution. I wish to enter a plea, while conceding the advisability of small classes for clinical teaching, that while we have a limited number of students in the arena, that we at the same time teach a larger number in the seats. I do not believe that those students are there exclusively for the purpose of holding down the seats. I think any clinical teacher, competent to teach, will be able to instruct not only the few students immediately near him, but at the same time greatly instruct the larger student body in the amphitheater. The impracticability of dividing large classes into small sections will appeal to all. If you divide a class of 100 students into 25 classes, you have four students in a class. If you want to give them the clinical teaching as it was suggested here to-day, it means that you must have 25 teachers, and if each case is to come several times a week, you will have an enormous teaching body.

In our efforts to provide the best possible course for all concerned, from the laboratory to the clinic and the dispensary, and last, although by no means the least, the bedside work, let us not forget that we can combine

these and benefit our students more than by swerving into any one direction only.

The diversity of opinion expressed here to-day is the best evidence that we should formulate some course which we can all follow and by means of which we can achieve better results than we are now achieving in our medical colleges.

Dr. Dudley S. Reynolds :

I want it understood that I have six demonstrators assisting me at my clinic. I am the seventh, and as we have four students each, 28 students are at work at one time or as fast as the patients can be called in. The gentlemen on the seats hear nothing except who is to take charge of the case. Sometimes they may hear that "this is a case operated on last Monday for" or something of that kind.

Dr. John Chase, University of Colorado, Boulder, Col. :

I think that nothing in the world is more important than a clinic. I do not believe that Dr. Reynolds could get up in front of 100 sophomores and talk on iritis for one hour without being of decided benefit to them. He is caustic enough and thorough enough to be able to give them as much in an hour's talk as he could in one hour of personal demonstration.

For the last 15 years I have been teaching in small colleges where four-fifths of the teaching consisted of clinical instruction. Four men are enough to one case, but I have always been able to keep 49 more awake at the same time.

## REMARKS ON MEDICAL EDUCATION.<sup>1</sup>

BY DR. GUSTAV FUTTERER, Professor of Pathology, N. W., University Medical School; Professor of Medicine, Chicago Polyclinic.

First, I think we must recognize the necessity of a good preparatory education on broad lines, but particularly the natural sciences and modern languages: of the latter, German, French, and Italian.

Second, however uniform and good the preparatory education may have been, students of very different quality will enter the medical schools. The recognition of this fact I consider of the utmost importance, even fundamental, as it would at once suggest that mere class teaching will not lead to desirable ends, but that the teacher must try to grasp the essential individual differences of the pupils as quickly as possible, and deal with them personally, accordingly.

It is not our ideal to turn out a class with a few shining stars, a mass of half-satisfactory men, and a number of others who are way behind; it is, and must be, our ideal to stir up every one of medium quality, to constant strong effort, and to lift up those at the lower end daily, friendly but unceasingly. Every student must feel that it is noticed at once when he lags behind, and that he cannot get rid of his teacher until he falls into line with the rest. Only in this way can we fulfil our trust to the student, his parents, our school, the public, and ourselves. Only in this way can we accomplish a uniform education of the classes,—as far as this is at all possible.

If then the study of the individuality of the student is our first duty, the second is the teaching on broad lines, adapted to the student's capacity for grasping things which are so new to him. While we may lecture to classes, we must be ever ready to explain to the single individual, who failed to see things in the light in which we wanted him to see them. We must also never forget that it is quite necessary when demonstrating the extent of our knowledge on a given subject to be very care-

<sup>1</sup> Read before the Association of American Medical Colleges, Atlantic City, June 4, 1900.

ful to show plainly its limitations. The student must be told where knowledge ends and where speculation begins.

When a student, I had a teacher who used to invade speculative territory without the slightest signal of warning, and this had a most confusing effect upon the minds of his students. They felt as if they had not the proper faculty for grasping and understanding the problems before them, and they were greatly relieved when a new teacher came, who taught in a clear, concise, and thorough manner, always indicating the beginning of speculation. It is surely advisable always, to remember our own difficulties as students, in order to anticipate and meet properly, those of our listeners.

Not only must students learn matters laid out for them, but it is all important that they should learn them at the proper time, as this will enable them to understand other parts of their study. It seems that only constant quizzing of each one individually, separately, not a general quiz before the class, will lead to the desired end. This is a most trying task for the teacher, but the reward is a very uniform education of the class, and at the end of a course, we know exactly the standing of each student, and we may then not only feel satisfied to have taught, but much better, because the students have learned everything that has been taught. Then we may feel assured that we have fulfilled our trust.

In conducting such personal quizzes, it is necessary to invite those whose knowledge is not satisfactory to another quiz for the next day, and should the result again be unsatisfactory, again for the next day, and so on. The student will feel that his kind but persistent teacher is in earnest, and that there is no chance for him to escape with dusty corners in his brain. Complete and unconditional surrender follows, and our student joins the better class.

Constant repetition is another important matter and it can easily be practised. The question may be raised whether the teacher will be able to apply such a method to large classes. But the first question should be, whether this method is the right one. If we concede that we must individualize, and I think we must do that, then we must apply ourselves to the

individual student in the way indicated. This conceded, there must be enough teachers to do the work. The writer has taught classes of 40 students in this manner without any assistance, and with an assistant, 80 could be taught. Of course, time must be well utilized, none must be lost.

Another subject that needs attention is the so-called "matter-of-fact standpoint," so much worshiped by the masses, and so religiously adhered to by most of the students, apparently so correct, and in reality so wrong.

In this huge vibrating mass composing the universe, nothing can be figured on with mathematical exactitude. There are aberrations everywhere, and the phenomena of animal life are confusingly irregular as compared to mathematical formulae. Therefore the student should be prepared to meet the problems which animal life offers in the proper philosophic spirit; and as he is not prepared to do it, he must be taught to do so, in words, by example, and last, not least, by experimental work.

Let him formulate a question, let him work out carefully the method which he wants to apply to his experiment, let him perform the experiment, and he will find that he does not get the plain and straight answer which he thought he had good reason to expect. He will either get no answer at all, or an evasive one. He has to modify his method or even his question. He learns that the road which he has to travel is not straight as he supposed, but zigzag.

Many experiments have to be made, instead of only one, and he commences to regard with greater respect the work of others.

Another important subject to be considered, is that of original research work of the simplest kind. If we give each student a specimen to examine and to describe, preferably a pathologic specimen with a clinic history, he will have to preserve, harden, imbed, cut and stain it, after different methods, then describe the changes as best he can (subject to later correction by the teacher), and make drawings. Then the pathologic findings are compared with the clinic history; the work is arranged in proper order and the disposition is made. He has to look up literature; that is, he learns how to do it. In doing this he

learns the historic development of our knowledge of the disease in question, and another very valuable lesson in that it teaches him that we are standing on the shoulders of others, with whose names and work he becomes familiar; his horizon widens.

When we give him his subject, to get him started, we may tell him that we expect him to commence his work at once, but that he has a whole year to complete it. After finishing his work it will always act as a stimulus for more, and when our student in his later life as a physician observes interesting phenomena, he will not hesitate to communicate them to his profession, because he knows how to do it in good form.

Occasionally the teacher will find that some of the students become particularly interested in their work and display abilities which would enable them to do original work of a higher order. Encourage them to do it, and let the teacher by his example, show them how it must be done in the right spirit of unselfishness, thoroughness, justice to others, and seeking the truth.

Thus our student will become a higher type of physician, and do the highest duty of man, by adding a grain—be it ever so small—to the knowledge, progress, and welfare of the human race.

## REPORT OF SPECIAL COMMITTEE ON THE ELECTIVE SYSTEM.

Your Committee, appointed by the president at a meeting in June, 1899, to consider and report upon the elective system and its applicability to the medical curriculum, have had the same under consideration, and beg leave to submit the following report.

Election, as considered in this report, is understood to mean that method under which a student pursuing a certain course looking to the acquisition of a degree, or diploma, is allowed some choice in the courses of study which he may pursue,—a choice either in the branch of study, the method, or the instructor, or all of these combined.

The elective system, as thus defined, has been adopted more or less completely by practically every leading university in this country, and is constantly being extended. It is universally considered, by leading educators, as a very conspicuous advance in educational methods. We believe that all of the advantages which have been found to follow the elective system in institutions for general learning, would result in equal degree from its application to the medical curriculum.

The chief objection which has been urged against it, namely, that it may lead the student to elect his courses along some special line only,—may be perfectly guarded against by three efficient checks.

First, the good judgment and common sense of the student himself.

Second, the supervision of a competent dean whose approval of each student's registration should be required, and,

Third, by such a statement of the requirements for graduation as will compel each student to take a minimum amount of work in each important branch.

Guarded in this way, the elective system can with perfect safety be adopted by the medical college and given as large a scope as the teaching facilities and instructional force of the institution will permit.



Your committee would recommend, therefore, that this association pronounce in favor of the elective system as applied to medical education, and recommend to each of its constituent colleges that the elective system be introduced into its curriculum to that extent and in such manner as is best adapted to its teaching facilities.

JOHN M. DODSON,  
R. O. BEARD,  
LEWELLYS F. BARKER.

#### APPENDIX TO THE REPORT.

BY JOHN M. DODSON, M.D.

To accompany the report of your Committee on the Elective System, the chairman of the committee desires to present, in addition to the arguments set forth in the address which he had the honor to deliver before this association a year ago:

First, a quotation from the address recently delivered before the Congress of American Physicians and Surgeons by its president, Prof. Bowditch, of Harvard University, and,

Second, a brief statement of the experience of Rush Medical College during the past year.

I quote from President Bowditch's address, as follows:

In the first place, it may be assumed that a medical school of the first rank should be an institution in which the most advanced instruction in all departments of medicine can be obtained, and on this assumption it is, of course, impossible to arrange a course of study that every student must follow in all its details, for, in the time which may properly be devoted to a course of professional study, it is quite impossible for even the most intelligent students to assimilate all the varied information which such a school may be reasonably expected to impart.

It seems, therefore, to be evident that in arranging a course of medical study a distinction must be made between those subjects which it is *essential* that every student should know and those subjects which it is *desirable* that *certain* students should know; that is, between those things of which no man who calls himself a physician can afford to be ignorant, and those which are important for certain physicians but not for all; in other words, provision must be made both for required and elective studies. The task of drawing the line between the essential and the desirable in medical education will require the greatest possible good judgment and readiness for mutual concession on the part of those engaged in the work, but there is no reason to fear that the difficulties will be found insuperable when the importance of the change has once been recognized.

Any one who is familiar with the existing methods of medical instruction is aware that in nearly every department many things are taught which are subsequently found to be of use to only a fraction of those receiving the instruction. Thus, the surgical anatomy of hernia is taught to men who will subsequently devote themselves to dermatology, future obstetricians are required to master the details of physiologic outfits, and the microscopic anatomy of muscles forms a part of the instruction of men destined to a career as alienists. Now no one can doubt the propriety of including instruction on all these subjects in the curriculum of the medical school, but it may be fairly questioned whether every student should be forced to take instruction in them all.

To better indicate the nature of the reform which I am advocating, allow me to describe a possible arrangement of a course of study in the department of physiology, with which I am more familiar than with any other. An experienced lecturer will probably find it possible to condense into a course of about 40 or 50 lectures all the most important facts of physiology with which every educated physician must necessarily be familiar. Attendance upon these lectures, combined with suitable courses of text-book instruction and laboratory work, would suffice to guard against gross ignorance of physiologic principles. In addition to this work, all of which should be required, short courses, of not more than eight or ten lectures each, should be provided, giving advanced instruction in such subjects as the physiology of the special senses, cerebral localization, nerve-muscle physiology, the internal secretion of glands, the physiology of the heart, circulation and respiration, the digestive secretions, the reproductive organs, etc. These courses should be elective in the sense that no student should be required to take them all. Each student might, however, very properly be required to choose a certain number of courses, which, when once chosen, become, for the student choosing them, required courses leading to examinations. There is, in my opinion, no doubt that an arrangement of instruction similar to that here suggested for physiology could be advantageously adopted in the department of anatomy, histology, bacteriology, medical chemistry, pathology, surgery, and in the courses of instruction in the various special diseases, such as dermatology, ophthalmology, etc.

In the existing state of medical legislation the introduction of the elective system, in some form or other, seems to be an essential condition to any further important advance, for the curriculum of most of our schools is already so crowded that no considerable amount of instruction can possibly be added. Various arguments may, of course, be advanced in opposition to the change. It may perhaps be urged that no choice of studies can be made without determining to some extent the direction in which the work of a future practitioner is to be specialized and that such specialization can not be properly and safely permitted until the student has completed his medical studies. To this it may be answered that, whatever may be the dangers of too early specialization, the dangers of crowding the medical course with instruction of which many students do not feel the need, and of thus encouraging per-

functory and superficial work, are certainly no less serious. It is, moreover, a matter of common observation among teachers in medical schools that a certain number of students very early make up their minds, either that they will become surgeons, obstetricians, or specialists of some sort, or, on the other hand, that they have a strong aversion to certain branches of medicine and the determination never to practise them. For such students a prescribed curriculum necessarily involves great loss of time and energy.

If it be said that under this system the medical degree will cease to have the definite meaning now attached to it and that it will be impossible to tell from his diploma in what way a physician has been educated, it may be replied that, although the degrees of A.B., A.M., Ph.D., and S.D. are affected with exactly this same uncertainty of signification, their value seems in no way diminished thereby. As long as the M.D. degree stands for a definite amount of serious work on medical subjects, we may be reasonably sure that those who hold it will be safe custodians of the health of the community in which they practise.

If it be urged that the elective system in medical education will lead to the production of a class of physicians who, owing to the early specialization of their work, will be inclined to overrate the importance of their specialty and to see in every disease an opportunity for the display of their special skill, it may be pointed out that this result is apt to be due not so much to early as to imperfect instruction in the work of a specialist, and that since the Elective System tends to encourage thoroughness in special instruction, the evil may be expected to diminish rather than to increase.

In regard to the experience with the Elective System at Rush Medical College, I desire to say that during the current session, about one-third of the branches of the junior and senior years have been elective. In view of the fact that this plan was new, both to members of the faculty and with few exceptions to the student body, the readiness with which they adapted themselves to it, and the discretion and good judgment displayed by the students in filling out the registration cards, has been very gratifying. The increased enthusiasm and interest which was anticipated under this system, has been fully realized and not less among the members of the faculty than among the students.

Stimulated by the thought that students registering for a particular course had done so voluntarily, and not by the compulsion of college rules, some of the teachers of the faculty have been animated, as it were, by a new spirit, and some of the branches, especially those of a clinic nature, which were formerly poorly attended, and from which students were constantly seeking to be excused, have been largely attended and the stu-

dents have signified in an emphatic manner their appreciation of the change in the character and efficiency of the teaching.

The fear which had been expressed in regard to the Elective System, that students would seek to specialize and would concentrate their energies upon certain lines, to the neglect of others, has proved to be quite groundless. There are several efficient safeguards against this abuse.

First, the veto power of the dean, or other officer, whose approval of the student's registration card is necessary before he can enter upon the courses chosen. It is the business of this officer to consult with the student and to see to it that he selects his work judiciously, so as to insure a broad, thorough training.

Second, in the requirements for graduation, it is specified that when the student presents himself for the degree, he must present evidence of having taken a minimum amount in each of the essential branches.

Third, a thorough, final examination; written, oral and practical is to be given in each of the practical departments when the student comes up for graduation. Each student must see to it that the courses which he elects are such as will prepare him to stand this rigid examination. There will be little temptation, therefore, to elect work under teachers who are supposed to be more lenient in their teaching methods than others.

Last, but not least, is the common sense and good judgment of the student himself, which faculties are prone to under-estimate. The average age of the students in Rush Medical College is about 24 years. A large proportion are college-bred men. They are fully alive to the fact that the successful practitioner in medicine, even though he may ultimately limit his practice to some special line, must have a broad, thorough training in all the departments of medicine, and the experience of the past year has shown that they elect their courses with this end in view. This very act of election with the introspection which it necessitates on the part of each student, that is to say, the careful study of his own ability and needs, and the adjustment of the curriculum to meet them, is an educational resource of no mean value.

The authorities of the college have been so well satisfied with

the results of the Elective System during the past year, that at the last meeting of the faculty it was unanimously decided that all the work of the junior and senior years be made elective after July 1, 1900.

Under the safeguards above mentioned, it is believed that this plan is free from the dangers of undue specialization in the college course, and that under its broad freedom the many advantages will be realized in the fullest possible manner.

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## ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

### TRANSACTIONS.

June 4, 1900.

The Association of American Medical Colleges, pursuant to call, met in the parlor of the Hotel Shelburne at 2.30 P.M., with Dr. Parks Ritchie in the chair.

Fifty-eight colleges were represented, *viz.*:

Arkansas Industrial University, Medical Department.  
University of Southern California, College of Medicine.  
Gross Medical College.  
University of Colorado, Medical School.  
University of Denver, Medical Department.  
Columbian University, Medical Department.  
Georgetown University, Medical Department.  
Howard University, Medical Department.  
College of Physicians and Surgeons, Chicago.  
Illinois Medical College.  
Northwestern University, Woman's Medical School.  
Rush Medical College, Chicago.  
Ft. Wayne College of Medicine, Taylor University.  
Central College of Physicians and Surgeons, Indianapolis, Ind.  
Medical College of Indiana.  
Iowa College of Physicians and Surgeons, Drake University.  
State University of Iowa, Medical Department.  
Keokuk Medical College, College of Physicians and Surgeons.  
Kansas Medical College.  
Hospital College of Medicine.  
Kentucky School of Medicine.  
University of Louisville, Medical Department.  
Kentucky University, Medical Department.  
New Orleans University, Medical School.  
Baltimore Medical College.  
University of Maryland, School of Medicine.  
Woman's Medical College of Baltimore.  
College of Physicians and Surgeons, Boston.  
Tufts College Medical School.  
Detroit College of Medicine.  
Michigan College of Medicine and Surgery.  
University of Minnesota, College of Medicine and Surgery.  
Kansas City Medical College.  
Barnes Medical College.  
Marion Sims College of Medicine.

John A. Creighton Medical College.  
 Omaha Medical College.  
 Albany Medical College, Union University.  
 University of Buffalo, Medical Department.  
 Syracuse University, College of Medicine.  
 University of North Carolina, Medical Department.  
 Cincinnati College of Medicine and Surgery.  
 Medical College of Ohio.  
 Miami Medical College of Cincinnati.  
 Western Reserve University, Medical Department.  
 College of Physicians and Surgeons, Cleveland.  
 Ohio Medical University.  
 Starling Medical College.  
 Toledo Medical College.  
 University of Oregon, Medical Department.  
 Willamette University, Medical Department.  
 Jefferson Medical College of Philadelphia.  
 Medico-Chirurgical College of Philadelphia.  
 Woman's Medical College of Pennsylvania.  
 Western Pennsylvania Medical College.  
 Central Tennessee College, Meharry Medical Department.  
 Milwaukee Medical College.  
 Wisconsin College of Physicians and Surgeons.

The following papers were presented :

1. President's address, by Professor Parks Ritchie, dean University of Minnesota.
2. "A Report on the Practical Operation of the Case System in Harvard Medical School during the Past Year," by Professor W. D. Cannon, of Cambridge.
3. "Methods of Clinical Instruction, and the Management of Clinics," by Professor F. C. Hotz, professor of ophthalmology in Rush Medical College.
4. "Remarks on Medical Education," by Gustave Futterer, of Chicago.
5. "Report by the Committee on Elective Courses in Medical Schools," by Professor John M. Dodson, M.D., chairman.

The president appointed a Nominating Committee, consisting of Drs. E. Fletcher Ingals, J. P. Lord, and J. W. Holland.

On motion, the meeting adjourned until 8 P.M.

#### SECOND SESSION.

The association convened at 8.30 P.M., in the smoking room

of the Hotel Shelburne pursuant to adjournment with President Dr. Parks Ritchie in the chair.

On motion the reading of the secretary's report was dispensed with, it having been published in the June number of the Bulletin of the American Academy of Medicine and was distributed to the members.

The roll-call of membership showed 31 colleges present, represented as follows :

Edwin Bentley, Arkansas Industrial University, Medical Dep't.  
 A. R. Baker, Physicians and Surgeons of Cleveland.  
 William E. Quine, Physicians and Surgeons of Chicago.  
 D. R. Brower, Woman's Medical School, N. W. University of Chicago.  
 U. O. B. Wingate, Wisconsin College of Physicians and Surgeons.  
 Franklin E. Murphy, Kansas City Medical College.  
 Randolph N. Hall, Illinois Medical College.  
 Joseph T. Smith, Woman's Medical College of Baltimore.  
 W. J. Means, Ohio Medical University.  
 E. A. de Schweinitz, Columbian University Medical School.  
 H. O. Walker, Detroit College of Medicine.  
 Swan M. Burnett, Medical School, Georgetown University.  
 Geo. L. Jenkins, Keokuk Medical College, and College of Physicians and Surgeons, Keokuk, Iowa.  
 W. H. Earles, Milwaukee Medical College.  
 J. C. Oliver, Cincinnati, O.  
 Oscar Hasencamp, Toledo Medical College.  
 J. P. Lord, Creighton Medical College.  
 J. W. Holland, Jefferson Medical College.  
 David Street, Baltimore Medical College.  
 John Chase, University of Colorado.  
 Geo. J. Cook, The Medical College of Indiana.  
 Henry E. Tuley, Medical Dep't Kentucky University.  
 J. M. Bodine, Medical Dep't, University of Louisville.  
 William H. Wathen, Kentucky School of Medicine.  
 William D. Middleton, State University of Iowa.  
 R. S. Magee, Kansas Medical College.  
 P. Richard Taylor, Hospital College of Medicine.  
 Harold Williams, Tufts College Medical School.  
 Randolph Winslow, University of Maryland.  
 Dudley S. Reynolds, Hospital College of Medicine.  
 Victor C. Vaughan, University of Michigan.

The Committee on Amendment of Constitution, through its chairman, Dr. E. Fletcher Ingals, presented its report which was received.

On motion of Dr. H. O. Walker, the amended constitution was considered by sections, *ad seriatim*.

The amendment to this motion offered by Dr. J. M. Bodine, that the consideration of the amendments be deferred until next year, and that a copy of these amendments be sent to each member of the association, was lost.

Sections 2, 4, 6 of Article II, and all of Article III of the proposed constitution were adopted as read, with slight modifications as below :

SECTION 2.—Whereas night medical colleges are both unnecessary and unhygienic, and whereas it is impracticable for a student devoting the day to other avocations and applying only the evening to the study of medicine, or even one who is studying part of the day and attending college by night, to make that progress that is required of students who devote their whole time to the study of medicine ; therefore this association cannot recognize the so-called night or evening schools, in which a considerable part of the instruction is given in the evening.

SEC. 4.—Any medical college desiring membership in this association shall make application to the secretary accompanied by evidence that the college applying is conforming to the requirements of this association and by a guarantee that the expense of investigation by the association will be borne by said college, but before such application can be accepted, said college must be visited by at least one member and thoroughly investigated by all the members of a committee of three appointed by the president of the association from the faculties of colleges, members of this association. The expense of this investigation shall be borne by the college desiring admission and this must be guaranteed before the investigation is undertaken and it must be paid as soon as the investigation is completed, and before any report can be made. Upon a favorable report of this committee and payment by the college of the annual dues, the college shall be elected to membership at the next meeting, if it receives the favorable ballot of three-fourths of the colleges represented at that meeting.

#### ARTICLE III.

SEC. 1.—From and after July 1, 1900, no medical college, a member of this association, shall permit a student to matriculate who does not possess a diploma from a high school, academy, normal school, or college, giving a thorough preliminary education, or who has not passed a thorough examination in all the branches usually taught in such schools. This preliminary education must include :

- (a) A thorough knowledge of English grammar, composition, and rhetoric.
- (b) Mathematics, including higher arithmetic, algebra through quadratics, and plane geometry.

(c) Latin, the equivalent of one year's study in a good high school, covering at least one book of Cæsar's commentaries or an equivalent thereof.

(d) Elementary physics.

(e) United States history.

SEC. 2.—This examination must be conducted by a state superintendent of public instruction or some one delegated by him ; or by the members of the faculty of a university or college, who are not connected with the medical faculty of the college the student wishes to enter ; or by such a body as the board of regents of the University of the State of New York ; or a licensed examiner of the state examining board. In place of this examination or any part of it, colleges, members of this association, are at liberty to recognize the official certificates from the above-named schools covering the work herein specified. If a student be found on examination deficient in not more than two-fifths of the subjects required, he may be admitted on condition of making up those branches before he enters the sophomore year.

SEC. 3.—Colleges, members of this association, may allow students to enter the sophomore class, who have earned the B.A., Ph.B., or B.S. degree from a first class college, whose required course extends over at least three years of not less than eight months each, and who have had an adequate course in science ; or students who are graduates from high-grade colleges in dentistry, pharmacy, or veterinary medicine, and who possess the proper preliminary education indicated in Section 1, providing all such students shall pass a thorough examination in at least three-fifths of the work of the freshman year of the college they desire to enter and that they shall be conditioned in the remaining subjects of the freshman year, which conditions must be removed before they can pass on to the junior year. Credit may be given for all work which, as demonstrated by thorough examinations, has been accomplished in the institution specified in this section.

SEC. 4.—Colleges, members of this association, shall not admit to the junior year (third year), students who have taken the first two years of their medical course in the medical department of a literary college (that offers courses for the first two years in medicine only), without first requiring such students to pass a thorough examination in all the branches taught in the freshman year, and in at least three-fifths of all the branches taught in the sophomore year of the said medical college. On the remaining branches they may be conditioned in the same manner hereafter provided for students passing from one medical college to another.

SEC. 5.—Colleges, members of this association, may allow *credit for time* to graduates or students of homeopathic or eclectic colleges for as many years (each of at least 825 hours' actual work in college) as they have attended those colleges, provided they have met the other requirements of this association and that they take a thorough course in materia medica and therapeutics, and pass the examinations in these branches.

SEC. 6.—No medical college, a member of this association, shall permit a student to enter an advanced class unless such student presents certificates

from a college whose requirements fully equal those of this association, of having successfully passed the examination in at least three-fifths of the branches embraced in the curriculum of the previous years of the college he desires to enter, or until such student has successfully passed examinations on the same. Upon the remaining branches such student may be conditioned; however, these conditions must be removed by the student taking the work (providing it has not already been taken) and successfully passing the examinations before he can pass on to the succeeding class (that is, a student shall not carry conditions for more than a year).

SEC. 7.—No medical college, a member of this association, shall confer the degree of doctor of medicine upon any student who has not attended, in a well-equipped medical college, four courses of lectures, 26 weeks of actual teaching, each, excepting, however, the credits allowed for preliminary education in science. (See Article III, Section 3.)

These courses must embrace at least 3,300 hours' actual work in the college, including besides didactic lectures and recitations:

(a) 500 hours' laboratory work, for example, in histology, pathology, anatomy, physiology, etc.

(b) 150 hours' practical work, such for example as operative surgery, physical diagnosis, bandaging, etc.

(c) One or more obstetric cases to be personally attended by each student; and

(d) 750 hours' clinical instruction.

All of the work shall be fairly apportioned throughout the four years. No student can be credited with the work of a course who has not attended at least 85 per cent. of the exercises and who has not successfully passed the examinations in at least four-fifths of that work. At least 42 months must intervene between a student's matriculation and the date of graduation, provided, however, that allowance shall be made for all credits permitted by this constitution.

Dr. Bayard Holmes rose to a point of order. He read the call for the meeting as follows:

*Journal of the American Medical Association*, April 28, 1900. Association of American Medical Colleges.—The next meeting of this association will be held in the Hotel Shelburne, in Atlantic City, N. J., June 4, 1900, the Monday preceding the meeting of the American Medical Association. The educational session will be opened at 2 P.M., with the following program: 1. The President's Address, by Parks Ritchie, Dean of the University of Minnesota, Minneapolis, Minn. 2. "Methods of Clinical Instruction and the Management of Clinics," by Professor F. C. Hotz, Professor of Ophthalmology in Rush Medical College, Chicago. 3. "A Report on the Practical Operation of the Case System in Harvard Medical School during the Past Year," by W. D. Cannon, Cambridge, Mass. 4. "The Library of Pathologic Specimens," by Gustave Futterer, Chicago. 5. "Report by the Committee on Elective Courses in Medical Schools," by John M. Dodson,

M.D., Chairman, Chicago. According to the constitution of the association, all amendments must be incorporated in the "Call." The following has been submitted by the *Milwaukee Medical College*, and is herewith submitted to the members of the Association, that it may be acted on at the meeting: Amendment to Article III (Section 8.)—" *Colleges, members of this association, to remain in good standing, must not accept from any student a tuition fee less than that advertised by said college in its annual announcement for that year.*"

BAYARD HOLMES, M.D., *Secretary.*

He claimed that the consideration of these amendments proposed by Dr. Ingals did not conform to the requirements of Article VII of the constitution. He appealed to the chair for a ruling. The chair ruled against the point. Dr. Holmes appealed to the house. The house sustained the chair.

Dr. Street presented the following motion, which was carried.

" *These amendments shall become effective on and after July 14, 1901.*"

Dr. Bodine moved that these amendments proposed by Dr. Ingals and Dr. Street be adopted as a whole and that the vote be taken by roll-call. The motion was carried and the secretary called the roll, resulting as follows:

|                                              |    |
|----------------------------------------------|----|
| Number of members eligible to vote . . . . . | 56 |
| Number voting . . . . .                      | 25 |
| Yeas . . . . .                               | 18 |
| Nays . . . . .                               | 7  |

The president declared the amendments carried.

Dr. Bodine asked the chair for a ruling claiming that according to Article VI, Section 2, there was no quorum present.

The chair ruled that there was a quorum, and that the amendments were carried in accordance with Article VII.

Dr. Holland presented the following resolution:

*Resolved*, That a committee be appointed to confer with a similar committee of the confederation of examining and licensing boards for the purpose of considering joint measures for promoting the aims they have in common.

2. That this committee shall be composed of five members including the president of this body.

The chair appointed Dr. Holland, Dr. Reynolds, Dr. Quine, Dr. Means, and the president.

The report of the Nominating Committee was presented by Dr. E. F. Ingals, and accepted. The secretary was instructed to cast the unanimous ballot for the association.

Your Committee on Nomination recommends the following nominations: For *President*, A. R. Baker, of Cleveland; *First Vice-President*, Thos. H. Hawkins, of Denver; *Second Vice-President*, W. H. Earles, of Milwaukee.

*Members of the Judicial Council*.—Parks Ritchie, of St. Paul, three years; W. W. Keen, of Philadelphia, three years; J. M. Dodson, of Chicago, two years.

[Signed]

E. FLETCHER INGALS,  
JAMES W. HOLLAND,  
JOHN P. LORD.

Dr. Ritchie introduced the president-elect, Dr. A. R. Baker, to the association, after which an adjournment was taken till 9 A.M., Tuesday morning.

June 5, 1900.

Pursuant to adjournment the association was called to order at 9.40 A.M., in the smoking room, President Parks Ritchie in the chair.

Dr Bayard Holmes was elected secretary.

The judicial council, through its chairman, Dr. Dudley S. Reynolds, reported favorably upon the application for membership of the University and Bellevue Medical College, the Cooper Medical College, the University of Kansas, Medical Department, and the American Medical Missionary College. They were unanimously elected to membership.

The judicial council, Dr. D. S. Reynolds, chairman, reported unfavorably on the application of the Medical Department of the University of Missouri.

Dr. J. M. Bodine moved that the request of the Medico-Chirurgical College to confer degrees of D.D.S., and M.D., after a five years' course, be granted.

Amended by Dr. Oliver that a committee be appointed to consult with the National Association of Dental Faculties. Action was deferred, and motion was laid on the table.

Dr. Reynolds read the correspondence relating to the Kansas Medical College, and, on motion of Dr. Winslow, it was decided that a reprimand be administered to the college for having disregarded the regulations of the association.

The charges against the University of Buffalo were read. On motion of Dr. Jenkins, the explanation of the college was accepted.



After hearing the charges preferred against the University Medical College, of Kansas City, Dr. Chase moved that this college be suspended from membership until they conform to the rules of the association. Motion carried.

In regard to Albany Medical College, against which charges were preferred by judicial council, as it was decided on motion of Dr. Chase, that the college be suspended until they give sufficient evidence to the judicial council that they have complied with the rules of the association.

On motion a vote of thanks was extended to the judicial council by the association for the able manner in which it has performed its arduous and exacting duties.

Dr. Chase introduced the following resolution, which was adopted : *Resolved*, That the place of publication of the proceedings shall be left to the discretion of the president and secretary.

On motion Article I, Section 2, was amended by striking out all portions before the words "this association cannot" at the end of the sixth line and substituting the words "more than one fourth" for the words "a considerable part" at the end of the seventh line. Further that this association cannot recognize the so-called night or evening schools in which more than one-fourth of the instruction is given in the evening.

On motion the resignation of the Louisville Medical College from membership in the association was accepted.

The judicial council is empowered to make up as soon as possible for the information of all members, the decisions in matters referred to it at this meeting and which could not be disposed of at this time.

On motion the association adjourned.

BAYARD HOLMES, *Sec'y.*

## APPENDICES.

### DOCUMENTS RELATING TO A PROTEST AGAINST AN ACTION OF THE ASSOCIATION.

ATLANTIC CITY, N. J., June 4, 1900.

#### *To the Association of American Medical Colleges :*

I protest against the adoption of any amendments to the constitution, at this meeting, excepting that proposed by the Milwaukee Medical College concerning the matter of the fee which colleges shall demand of students, because, no notice has been given to all the members of any of the contemplated changes presented by Dr. Ingals this evening, as required by Article VII of the constitution, and ask a decision of the council as soon as possible.

Respectfully,

E. A. DE SCHWEINITZ,  
Dean of the Columbian Medical College,  
Washington, D. C.

This protest was filed with the secretary, and presented by him to the association ; and, by order of the president, referred to the council.

The proposed amendments to the constitution include radical changes in the qualifications for membership, and alterations in nearly every Section of every Article in the constitution.

I certify that no notice was sent to me, and that the representatives from the following colleges announced at the time of the aforesaid proposed amendments that they had received no notice of any purpose upon the part of any one to so alter and amend the constitution ; namely, Professor James W. Holland, of the Jefferson Medical College ; Professor E. A. de Schweinitz, of the Columbian Medical College, Washington ; Professor J. M. Bodine, of the University of Louisville ; Professor H. O. Walker, of the Detroit Medical College ; Professor Randolph Winslow, of the University of Maryland ; Professor Bayard Holmes, of the College of Physicians and Surgeons, Chicago ; Professor Wm. J. Means, of the Ohio Medical University, and others.

On taking the final vote upon the adoption of the amendments aforesaid, Professor J. M. Bodine, of Louisville, demanded a call of the roll, which was ordered. The secretary announced yeas, 18; nays, 7; total 25. Number of members eligible to vote at that time, 56. A quorum not being present, the association adjourned to 9 o'clock, Tuesday morning, June 5th. During the session of Tuesday morning, no reference was made to the action of the previous session, all of which I declare to be the truth as shown by my official records.

BAYARD HOLMES, *Sec'y.*

#### DECISION OF THE JUDICIAL COUNCIL SUSTAINING THE PROTEST.

The only authority known to the council for the presentation of the amendments, by Professor Ingals, of Chicago, is contained in the minutes of the meeting of the association, of June 5, 1899. On page 378 of the Bulletin of the American Academy of Medicine, which contains the official minutes of the meeting of 1899, it will be found that, after the reading of Professor Ingals' "Report on the Condition of Medical Education in the United States," "on motion of Dr. Holland, of Philadelphia, this report was accepted and ordered printed. The recommendations relative to the amendments to the constitution were referred back to the committee, with instruction to report to the secretary in time for the next annual call."

Now, it is clear from the secretary's certificate herein that, no such notice or report was sent to the secretary in time for the call for the meeting of 1900.

Two questions are raised in these proceedings; first, the question of authority to act upon the proposed amendments to the constitution. Article VII of the constitution says: "This constitution shall not be altered or amended, except by written notice to all members at least 30 days previous to a stated meeting, and by a vote of two-thirds of all the active members present at such meeting." The second question is, with reference to the number which constitute a quorum. Article VI, Section 2, of the constitution says: "A majority of the active members whose dues are paid shall constitute a quorum."

It will be seen that the language of the constitution is manda-

tory. It does not appear from the record that any member received notice of the intention to amend any of those portions of the constitution with relation to the qualifications for membership, or the requirements of members, etc. If, as it appears from the record, written notice was not sent to all members at least 30 days previous to the stated meeting, the association was not competent to consider propositions to amend, at the meeting of June 5, 1900. If the association had been competent to so consider, it appears from the record that 56 members were qualified to vote, and that, on the call of the roll on the final motion to adopt the proposed amendments, but 25 members answered to the call. It cannot be maintained that 25 constitute a majority of 56.

However much it may be desired to alter and amend our present constitution, it is, from the foregoing facts, manifestly clear that the meeting at Atlantic City, on June 4, 1900, was not competent to act upon any proposition to amend the constitution, excepting alone that which proposed to require all the members of the association to refuse to accept from any student a tuition fee less than that advertised in the official announcements for the current year, etc., no notice having been given of any other proposition to amend.

Cushing's "Manual of Parliamentary Practice," Section 19, says :

No business can be regularly proceeded with when it appears a quorum is not present.

Section 249 says :

When, from counting the assembly on a division, it appears that there is not a quorum present, there is no decision ; but the matter in question continues in the same state, in which it was before the division ; and, when afterwards resumed, whether on the same day or on some future day, it must be taken up at that precise point.

It does not appear that any motion was made or any attempt to adopt the amendments to the constitution at the session next ensuing, after it was ascertained that no quorum was present. It is therefore clear, inasmuch as the association took no further notice of the matter at the subsequent session when, so far as we know, a quorum was actually present, no proposition to amend the constitution is now before the association, and there can be

no alterations made in that instrument without serving written notice upon all members at least 30 days before the next annual meeting.

The protest of Professor de Schweinitz is sustained.

[Signed] DUDLEY S. REYNOLDS,  
 RANDOLPH WINSLOW,  
 VICTOR C. VAUGHAN,  
 HAROLD WILLIAMS,  
 JOHN M. DODSON, undecided,  
 PARKS RITCHIE, "  
 WILLIAM W. KEEN, absent in Europe.

True copy of original decision.  
 L. B. BALDWIN,  
 Ck.

#### CORRESPONDENCE CONNECTED WITH THE DECISION.

CHICAGO, August 14, 1900.

*My Dear Doctor :*

In response to a letter issued by Dr. Reynolds, the chairman of the judicial council of the Association of American Medical Colleges, asking for a vote by letter upon the question as to the legality of an action taken at a recent meeting of the association, I made no reply. I could not understand how the council had authority to act in such a matter, nor could I satisfy myself as to the exact facts.

Some time after the receipt of the first letter, I received a note from Dr. Reynolds which read as follows: "Because of your failure to promptly answer official correspondence, the functions of the judicial council of the American Medical Colleges are suspended." Not at all understanding the significance of this note I wrote Dr. Reynolds and received a very courteous reply, explaining what had been the custom of the judicial council, and I also received a letter written by Dr. Reynolds to Dr. Parks Ritchie, stating that a majority of the members of the council had already voted on the question submitted.

In order that my position in the matter may be made clear to the members of the council, I send you herewith copy of a letter which I have written Dr. Reynolds. This letter was written after a careful investigation of the facts in connection with the

meeting and according to my understanding of the functions of the council.

Very truly yours,

[Signed] JOHN M. DODSON.

To BAYARD HOLMES, M.D., *Sec'y*, etc.

CHICAGO, August 14, 1900.

DR. DUDLEY S. REYNOLDS, Louisville, Ky.;

*My Dear Doctor* : Replying to your note of some days ago, I would state that I do not propose to discuss the validity of the action of the association at its last meeting in passing the amendments to the constitution proposed by the committee of which Dr. Ingals is chairman. I take this position because, according to my understanding of parliamentary procedure, the council has no right nor authority in the matter. Even if it had, I should not be willing to vote upon the matter without a thorough discussion of the subject and a much clearer presentation of the facts on both sides than has yet been given.

To explain somewhat more fully my opinion in regard to the position of the council, let me briefly review the facts as they appear to me from the secretary's minutes of the meeting held at Atlantic City, which I have before me. These minutes start out as follows: "The Association of American Medical Colleges, pursuant to call, met in the parlor of the Hotel Shelburne at 2.30 P.M., with Dr. Parks Ritchie in the chair. Fifty-eight colleges were represented, *viz.*;" the colleges are then enumerated. This statement is clearly an error; what the secretary meant to write was, that 58 colleges were eligible to representation in accordance with Article IV, Section 2, of the constitution which states that "only duly delegated and active members in actual attendance, whose annual dues are paid, shall have the voting power," etc. Following the list of colleges, occurs this paragraph; "The following papers were presented." Here follows a list of five papers and then the statement that "the president appointed a Nominating Committee consisting of Drs. E. Fletcher Ingals, J. P. Lord, and J. W. Holland. On motion the meeting adjourned until 8 P.M." Then follows the minutes of the second meeting, in which, after noting that President Ritchie presided,

and that the reading of the secretary's report was dispensed with, it is written that the roll-call of membership showed 31 colleges present, represented as follows;" here follows a list of members present. Then comes a statement that "the Committee on Amendment of Constitution, through its chairman, Dr. E. Fletcher Ingals, presented its report which was received. On motion of Dr. H. O. Walker the amended constitution was considered by sections, *ad seriatim*. The amendment to this motion offered by Dr. J. M. Bodine, that the considerations of the amendments be deferred until next year, and that a copy of these amendments be sent to each member of the association, was lost. Sections 2, 4, 6, of Article II, and all of Article III of the proposed constitution were adopted as read with slight modifications as below." Here follows a statement of these modifications, and Article III is printed in full. Then it is recorded that Dr. Bayard Holmes arose to a point of order. He read the call for the meeting as follows: "He claimed that the consideration of these amendments proposed by Dr. Ingals did not conform to the requirements of Article VII of the constitution; he appealed to the chair for a ruling; the chair ruled against the point; Dr. Holmes appealed to the house; the house sustained the chair." Then, and I call special attention to this,—“Dr. Street presented the following motion, which was carried. These amendments shall become effective on and after July 14, 1901. Dr. Bodine moved that these amendments be adopted as a whole, and that the vote be taken by roll-call; the motion was carried and the secretary called the roll, resulting as follows: number of members eligible to vote, 56.” (No mention is made as to whether these 56 members were present or not, but it is plainly evident that only 31 members were present.) “Number voting, 25; yeas, 18; nays, 7. The president declared the amendments carried; Dr. Bodine asked the chair for a ruling, claiming that according to Article VI, Section 2, there was no quorum present. The chair ruled that there was a quorum and that the amendments were carried in accordance with Article VII. Then follows the resolution of Dr. Holland, and although the secretary fails to record whether this passed or not, it is stated that the chair appointed Drs. Holland, Quine, Means,

and the president. Then the report of the Nominating Committee was presented by Dr. E. Fletcher Ingals, and accepted. Dr. Ritchie introduced the president-elect and adjournment was taken until 9 A.M., Tuesday morning."

Now it is clear from these minutes, first, that the association with at least 25 members present decided that there was a quorum, and yet the judicial council, purely a creature of the association, three members of which, moreover, were elected at this very meeting, and after this question of quorum was raised, presumes to declare that the action of the parent association was illegal and assumes the authority to set it aside.

I do not know what the custom of the judicial council has been in the past, but it is a well established principle of parliamentary law, that a creature can not be greater than the creator. A committee may interpret that action of the body which created it, and of which it is a part, but it surely is not competent to set aside or annul the actions of the parent association. I deem this attempt of the judicial council, therefore, unparliamentary, illogical, and indefensible. Again, it is entirely unnecessary and gratuitous for the council to take such action in regard to amendments which, by the association itself, can not go into effect until July 1, 1901, before which time this association will have another regular meeting. It seems perfectly clear to me that whatever action the council may attempt at the present time it will certainly be passed upon, if it is considered at all, by the association in regular meeting before these amendments can be of any effect. Without entering, therefore, into the merits of the discussion as to whether the association's action is legal or not, a matter which that body itself will be able to determine at its next meeting, I am of the opinion that the council is usurping functions which do not belong to it and is wasting time in an entirely unnecessary and unwarrantable procedure in discussing the matter at all.

Very truly yours,

[Signed]

JOHN M. DODSON.

LOUISVILLE, KY., August 18, 1900.

*Dear Doctor:* In your communication of the 14th inst. you have wasted a great deal of ammunition in attacking the judicial



council, instead of discussing the only matter which was referred to you, as an associate judicial officer, by your chairman.

The questions presented to the council came from the association itself. A member filed a protest; this protest was read aloud by the secretary, and referred by the president of the association to the judicial council, without one word of dissent from any member. A subsidiary question subsequently raised by Professor Bodine, of Louisville, was also referred to the judicial council. These are the only matters you have any right to consider in connection with the subject of our present correspondence.

Just how you are able to satisfy yourself that 25 members could transact business, when the constitution says "A majority of the active members whose dues are paid shall constitute a quorum," and when the secretary certifies that 56 were entitled to vote, is more than I can comprehend. You are, however, entitled to your opinion, and the fact that you have appealed to all the other members of the council, is evidence that you have asserted your right. Meantime, the chairman of the council is without answer from you on the matters submitted for your decision.

I am, very truly yours,

[Signed] DUDLEY S. REYNOLDS.

To DR. JOHN M. DODSON,  
Chicago, Ill.

LOUISVILLE, KY., August 22, 1900.

PROFESSOR BAYARD HOLMES, M.D., Chicago, Ill.

*Dear Doctor:* When you sent me what purported to be a certified copy of the record, I pointed out to you a number of omissions and inconsistencies. Instead of correcting these, you have furnished Dr. Dodson with this incomplete and imperfect statement, which you say you submitted to me. How do you expect to acquit yourself of the responsible duties of secretary without making some effort to have a correct record? After Dr. Bodine's point had been determined with reference to the quorum, and the matter had been referred to the judicial council, I arose in the meeting, and asked permission to publish the decision of the council on this important matter. I have furnished you with a

copy of the council's action, signed by four members, one member being absent in Europe, and the other two being unwilling to decide.

I find that you are furnishing ammunition to Dr. Dodson with which to attack the council and the association ; this is quite a surprise to me, as I had supposed your friendly interest in the association would prompt you to make your minutes full and complete.

The matter you sent me was so voluminous I was obliged to abstract it, and I promptly sent you a copy of the abstract, which by your continued silence I naturally took for assent.

I should like to hear from you on these matters at once.

Meantime, I am,

Very truly, etc.,

DUDLEY S. REYNOLDS.

#### AMENDMENT PROPOSED.

At a recent meeting of the faculty of the Northwestern University Medical School, the following resolution was adopted :

" The faculty request the Association of American Medical Colleges to amend Article V of the constitution by adopting this Section 5." "Any college may be dropped from membership of the association for violation of its rules upon three-fourths vote of the colleges represented at any annual meeting providing the charges against such colleges shall be thoroughly investigated by the judicial council and said college shall have had opportunity of defending itself."

Also by adding Section 6 as follows : "No college, a member of this association, shall state in its catalogue or other advertising matter that it is a member of the association or use its membership in any way as an advertisement."

## SECRETARY'S TABLE.

### PRESIDENT RITCHIE'S ADDRESS.

There are two paragraphs in the address of President Ritchie published in this number which an outsider may discuss: The receiving students to advanced standing from another college, and the desirability for two degrees in medicine.

As to the former, it is a sad comment upon human nature that self-interest leads to the disregard of the interest of our fellows. Medical schools are not endowed. Whatever may have been the motive for establishing a medical school, once established, a dread of failure leads to any sacrifice—even of one's self-respect or the regard for the welfare of one's profession. While this has been made more manifest in medical schools, it has only been because there were more numerous temptations—physicians are not the greater sinners because they are included among the 18 upon whom the tower in Siloam fell. Thus it happens that medical college announcements have come to be considered creations of the imagination. Can it be that the growing power of the physician as a writer of fiction, is but the evolution from his efforts at composing a medical college announcement? We will not attempt an answer.

The position taken by Dr. Ritchie is not surprising, and yet one would think some college comity should exist, and the custom prevailing among the literary colleges—or many of them at least—might well be applied to the medical institutions as well. A student from X college applies for admission at Y. He wishes advanced standing, and mentions his residence at X, as one of the reasons why he is so seeking. He is required to present a statement from the faculty of X of his standing, *i. e.*, the class and his honorable dismissal. The motion usually prevails when this is done, that Mr. Z be admitted to the——class upon college comity to make up "blank." The student takes his place in the class assigned, the professor in mathematics, *e. g.*, soon learns whether the course at X parallels that at Y. He finds the calculus is not taught, and that subject helps to fill up the blank assigned to conditions. In the course of a few weeks all the

conditions are ascertained, and the student knows them, but is not required to undergo an *entrance* examination.

The second proposition can have much said *pro* and *con*. From a purely academic point of view, it is desirable that all doctorates be looked upon as a higher degree, not to be bestowed upon any who has not taken a *first* degree. In Johns Hopkins and Harvard, this is now recognized. But, until our whole educational system is more thoroughly correlated than it is at present, it is exacting too much to insist upon the A.B. or an equivalent degree upon all practisers of medicine. Since the state examination is becoming so generally the *sine qua non* for practising medicine, the mere academic distinction of M.B. and M.D. would not be as apt to divide the medical profession into two classes as when the college diploma was the sole authority for opening an office. This proposition may solve some of the educational problems of the day, and is well worth further consideration.

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#### BOOK NOTICES.

STRINGTOWN ON THE PIKE, A TALE OF NORTHERNMOST KENTUCKY. BY JOHN URI LLOYD. New York: Dodd, Mead, and Co. 1901. pp. 414. Price, \$1.50.

Mention has been made of Prof. Lloyd's novel in our pages while it was appearing in the *Bookman*. Now that the story is completed we find it as difficult as ever to formulate an opinion. It is interesting but uncanny; one wishes to see the end only to find a dirge in place of a wedding march. The story has to do with the life of one Sammy Drew, from his boyhood in Stringtown (with his love for Susie, whose name was only Susie, and his hate for the red-headed boy from the mountains) until as a learned expert he secures the conviction for murder of his enemy and marks the turning-point in his own career—to die by a potion of his own concocting. Sammy is the hero of the story, but Cupe, the aged negro, is the principal character. His ability to read the future from his signs—and he does not use predict after the fashion of the Delphic oracle by any means—his faithfulness, his pertinacity, all combine to make him a character. Into

the thread of the story are spun several very dramatic incidents, which are probably more to be admired than the story itself. The book will pay its perusal, and some portions will be reread ; but its weirdness, and the morbid (possibly unsanitary is the better word) features of the book will detract from the pleasure of its perusal.

**HANDBOOK OF PRACTICAL HYGIENE.** By D. H. BERGEY, A.M., M.D., First Assistant, Laboratory of Hygiene, University of Pennsylvania. Easton, Pa.: Chemical Publishing Company. 1899. pp. 164. Price, \$1.50.

This excellent little manual has a title that is somewhat misleading ; for it treats largely of analytic methods (chemic chiefly) of atmospheric air, water, soil, foods, ventilation, and heating, comprising, it is true, many of the duties of the sanitarian, but not all. The criticism may be captious, because a more accurate brief title does not suggest itself to the reviewer.

The text of the book does supply, in a convenient and concise form, a great deal of information extremely practical in the application of hygiene to practice. The work is one of laboratory methods and must be used in connection with some of the standard books on hygiene to interpret the results obtained.

**A TEXT-BOOK OF URINE ANALYSIS FOR STUDENTS AND PRACTITIONERS OF MEDICINE.** BY JOHN H. LONG, M.S., Sc.D., Professor of Chemistry and Director of the Chemic Laboratories in the School of Medicine and Pharmacy of Northwestern University, with numerous illustrations. Easton, Pa.: The Chemical Publishing Company. 1900. pp. 249. Price, \$1.50.

The effort is made in this book to present the subject so as to enable a systematic study of the analysis of the urine by the student; at the same time, this method makes the book convenient for reference by the practitioner. The diction is concise and clear ; the description of methods sufficiently full and easily comprehended, and the treatment of the whole subject is such as to commend the book for the purposes for which it was written—a text-book for students, and a guide for physicians but little practised in laboratory methods.

**PHYSICIANS' MANUAL OF THERAPEUTICS, REFERRING ESPECIALLY TO THE PRODUCTS OF THE PHARMACEUTIC AND BIOLOGIC LABORATORIES OF PARKE, DAVIS, AND COMPANY.** Detroit, Michigan. 1900. pp. 526. Complimentary copies sent to physicians upon application.

This is a handsome volume bound in flexible leather and a of

size permitting it to be carried in the pocket, and while a catalogue, it is much more than a mere list of the preparations furnished by the house publishing it; and it is not a price list. It furnishes a fund of information concisely stated, easily found, of especial use when the physician happens on an unusual condition, which he must meet promptly, and has neither the opportunity nor the time to go to his office and read it up. It reminds one of the books of tables, formulae, etc., used by the engineers, possibly from its size and appearance as much as its contents, and can be used in the same way.

**LOCAL APPLICATION IN MEDICAL PRACTICE.** By JOSEPH E. CHAMBERS, M.D. St. Louis: Published by the author. 1900. Paper. pp. 64. Price, \$1.00.

This pamphlet is addressed to the very limited audience of those who are "long familiar with treating disease, well grounded in the science of medicine, skilled in diagnosis, and perfectly familiar with symptomology, etiology, prognosis, and treatment, as laid down by our modern text-books." It is a plea for medication largely by external applications, which, as the author says is "his own rut, made by years of toil and effort and weary bedside vigil, as he has discarded drugs that failed to meet his anticipations."

**ABSTRACT OF THE PROCEEDINGS OF THE NATIONAL CONVENTION OF 1900 FOR REVISING THE UNITED STATES PHARMACOPOEIA, HELD AT WASHINGTON, MAY 2, 3, AND 4, 1900.** Philadelphia: J. B. Lippincott Company. 1900. Paper. pp. 54.

The title sufficiently indicates the scope of this pamphlet.

Herbert S. Stone and Company, of Chicago, announce the early publication of a translation of the 7th German edition of Dr. Franz Koenig's "Text-Book of Special Surgery." The translation, which is authorized, is by Dr. Arthur B. Hosmer, and it will be edited by Dr. Christian Fenger. It will be issued in three large octavo volumes.

# BULLETIN

OF THE

## American Academy of Medicine

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No. 5.

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THE AMERICAN ACADEMY OF MEDICINE is not responsible for the sentiments expressed in any paper or address published in the BULLETIN.

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### THE KENTUCKY MEDICAL PRACTICE LAW.<sup>1</sup>

By J. N. McCORMACK, M.D., LL.D., Secretary State Board of Health of Kentucky,  
Bowling Green, Ky.

To be really profitable annual conferences like this should partake largely of the nature of experience meetings, where members may recount in sorrow to sympathetic ears insurmountable difficulties met or defeat suffered in their respective states, or, amid applause and congratulation, announce and explain progress in new legislation or court decision, or growth in public sentiment in favor of scientific medicine as against the various forms of quackery and imposture. They might, too, be termed milestones upon the highway of our advancement, about which representatives of all the states may gather temporarily, compare notes, and then return to the position each has really attained in the march; a few in the vanguard, with quackery under control, the majority composing the main column, where charlatans and scientific physicians have equal legal recognition, and a considerable rearguard and straggling force, where charlatans and fads are exalted and the scientific physician is in constant danger from the undertow.

I have been not a little amused in reading the self-complacent publications upon medical requirements issued by the Board of

<sup>1</sup> President's address before the National Confederation of Medical Examining and Licensing Boards, June 4, 1900.

Regents of the State of New York, under whose benign authority quackery in all of its grosser forms flaunts itself with an effrontery seldom seen elsewhere, and the Bulletin of the American Academy of Medicine constituting our medical aristocracy, or professional "four hundred," most of whose members come from states where an honest doctor, if he behaves himself, stands nearly as well before the law as a Christian scientist or an osteopath—I say I have been not a little amused to find that the latest revised, improved, and duly verified editions of these publications put their own quack and fad-ridden states in classes "A" and "B," chiefly "A" or "AA," as to the requirements, while Kentucky, within whose borders an itinerant or advertising doctor of any kind has not dared to show his face for years, is put down in class "C" and away down at the bottom at that.

Now, I contend that Kentucky deserves better treatment. We may have committed a good many sins, but they were not along this line. We raise race horses, but most of their honors are won at Sheepshead Bay, Gravesend, and other Northern courses. We make good whiskey, but the larger part of this finds its way to the North and effete East. Last, and worst of all, we let the state go Republican once and brought upon our people an Iliad of woes, but we claim that this was an error in the count which we will never let happen again if these elect publicist and self-constituted authorities in things medical will only classify us pretty well up, say in the scale of "B."

The fact is that our law is very like those of most of the other states, and that the good results attained have come from the method, or rather the methods, of administering it. The law leaves much to the discretion of the board, which means that it is flexible and easily adapted to varying class and individual conditions. The preamble to the law sets forth prominently that its purpose is to protect the people from ignorant and unscrupulous charlatans, and it is administered with this sole aim in view. Accepting the opinion of the American Medical College Association, that it takes four years of school training to make a safe doctor out of a properly educated boy, we have adopted this standard, and all schools whose graduates are to



practice in Kentucky are required to conform to it. We aided cheerfully in forcing this measure of reform upon our own schools to their great hardship and serious financial loss, and we propose to hew to this line, let the chips and angry remonstrances come from and fall where they may.

In addition, recognizing the diploma as being only the applicant's pedigree, we next, after the custom of our horse breeders, investigate the qualities and character of the individual. Two stallions were once being exhibited in competition—one a very fine horse with little more registered pride of ancestry than a mule, while the other, a poor animal, traced his long family line on both sides back to the pure breeds of Arabia. Bret Harte says we always wink with the weakest eye, so the owner of the last entry asked the other the pedigree of his horse. "He has none," was the reply. "Darn a horse without a pedigree" and "durn a pedigree without a horse" were the quick sallies that closed the incident.

We work very much after this fashion. We want not only smart fellows who can pass a technical examination, but above this, and, as we conceive, more important than even this, our law contemplates and provides for honest men who will deal fairly and squarely with their people. As we understand it, the state has no authority to inquire as to names or methods of practice, or whether large or small doses, or no doses at all, shall be used. But it can require, it should require, and we do require, whether a doctor call himself an allopath, homeopath, osteopath, eclectic, or belongs to the "no-name series," not only that he be competent in his fundamental training, but that he shall be honest in his business methods. That is about all there is of it.

Nor does our supervision stop with the issuance of a license. Each applicant has been sworn that he will practise honest and legitimate medicine, that he will not become an itinerant or an advertiser. Then we have a medical referee in each county as a shepherd for his flock. A deviation from honest methods is promptly reported and brings a letter of kindly admonition from the central office which nearly always has the desired effect. All of this is done quietly, kindly, in the interest of the individual as well as the profession and public, and to this constant

attention to personal elements and seemingly unimportant details we attribute much of the effectiveness of our law.

I trust that you will not get the impression that it is difficult for an honest and competent physician, young or old, to obtain our license, for such is not the case. While it is made an up-hill, thorny, and stony road for one who has been or is likely to become a charlatan, and the indices and ear-marks of these are not so difficult of recognition as the novice may imagine, the competent and well-meaning applicant is put to the least possible trouble and expense, and is helped and cheered as becometh brethren and Kentuckians.

As a result of all these things, of our established reputation for fair dealing with all classes and systems of medicine, every doctor in the state, regular, homeopathic, and eclectic, worthy of the name, as well as most of our intelligent people and leading newspapers, are the friends and supporters of our law. If adverse legislation is proposed, they fly to its defense, they importune their representative and make his life a burden until he promises to stand by the right, and then, and this has much practical importance, they see that he never gets back as a member if he fails to keep his promise. In a word, our law being founded upon the right of the state to require training and honesty in those who desire to enter this life-saving profession, and being patiently and untiringly executed with an eye to these results alone, is a practical success in which the profession feels a justifiable pride.

Much has been said at former meetings and in the journals lately about the importance of reciprocity between the various states in the matter of medical license. From what has already been said you can readily understand why we can not seriously consider such propositions from other states under present conditions. From Maine to California, from the lakes to the gulf, in all the centers of population, we find the Copelands, the K. & K.'s, *et id genus omne*, who were run out of our state after tedious litigation many years ago. Now we do not want them back, and therefore cannot afford to recognize state certificates from Pennsylvania, New York, Illinois, or other states which

give them the right to practise, and where they flourish like the green bay tree.

We still look upon our work as in the experimental stage. It took four hundred years of constant struggle for our English ancestors and brethren to reach their present standards, which are yet far from ideal. For eighteen years after the enactment of our first law we made little more progress than did Sisyphus with his rock. All that we claim now is that we have laid broad foundations upon which those who come after us may safely build.

## ASSOCIATE MEDICAL EXAMINING BOARDS.<sup>1</sup>

BY CHARLES A. GROVES, M.D., East Orange, N. J.

*Mr. President and Gentlemen of the Confederation.*—In a review of what has been written or printed about medical examining boards, we find frequent allusions to separate and to mixed boards.

It is the latter class, about which at the instance of my confrères of the New Jersey State Board, I undertake to occupy a few moments of your time, preferring and using as a title, "Associate Medical Examining Boards." In these are associated representatives of the several legally recognized schools of medicine.

It is inevitable that when restrictive laws, on any subject, are enacted in a large number of states and territories, very great differences both in substance and method of execution will result. Such has been the case in regard to legislation upon the subject of the practice of medicine, though it is only fair to assume that the single end in view has been the elevation of educational standards and hence to ennoble and dignify the healing art. When a moment's thought is given to the subject, these differences are seen to be not only inevitable, but in view of the diverse conditions which environ the profession, to a certain extent expedient. It is wise to allow some diversity, suited to the general state of education in the community which is to be protected.

While the figures which I shall give have been hurriedly gathered and are no more than relatively correct, they serve as an illustration of my point.

There are some fifteen states in which the boards are made up of regular, homeopathic and eclectic physicians in varying proportion. Two states allow no representation to the eclectic school. One has four schools represented and on one board is found a lawyer. Ten states commonly classified as having associate boards, appear to me by their statutes to make it probable that the members are practically from one school. In nine

<sup>1</sup> Read before the National Confederation of Medical Examining and Licensing Boards, Atlantic City, June 4, 1900.

instances the State Board of Health (often appointed from the different schools) is charged with attending to such labors as the medical statute makes needful. Three separate boards, "Allopathic, Homeopathic and Eclectic," exist in nine states and in three others there are two boards, the eclectics having none.

The foregoing indicates what dissimilarity exists in the administrative part, but to attempt to show what further diversity there is in the statutes would be utterly hopeless in anything less than a volume.

Now while it *is* manifestly necessary in a nation comprising different races and many grades of civilization, laws, even if designed for a single end, must be modified both in substance, and in the method of enforcement, to suit the political, social, and educational environment; it is the purpose of this paper to present reasons for minimizing such differences and simplifying the necessary administrative methods.

To undertake at present the making over of all the laws concerning medical education on a harmonious plan, designed to secure the highest welfare of the public, protection to the educated and honorable practitioner, and suppression of both the ignorant and vicious impostor, would savor too much of rainbow chasing.

Such changes must be of slow growth, but there *is* hopeful evidence of growth along such lines. When, however, it comes to the administration of the laws, might it not be possible to devise a method which should be practically the same in all the states, to the great convenience, both of the profession and the public? If so much be admitted there would arise the question as to which of the three methods now in common use should be adopted, or whether some new device be originated.

The three methods now in favor embrace:

1. Administration by state boards of health.
2. By separate medical boards, one for each school.
3. By a single board in each state, made up of representatives of the several schools.

There may be reasons for accepting the first named method with proper provisions as to the membership of such boards of

health. That is a question I do not attempt to consider here.

A large majority of the law-making divisions of our land have adopted the method of constituting medical boards, having as their sole function, in most instances, the examination and licensing of proper applicants. Less disorder among existing systems would ensue if the latter course were universally accepted. Comparatively few states have separate boards, though unfortunately the number includes two of the largest and most influential. Of some fifty states and territories which have medical boards, three-fourths have adopted the plan of associate boards on which the several legally recognized schools of medicine nominally have representatives, and in most cases the representation is actual.

This type of examining board, if properly constituted and its members approach their work with the single purpose of performing a duty to the public and the profession, in the most effective manner, appears to me to offer the best promise of doing the labor in hand so as to command the approval of most thoughtful people. It is proper at this point to allude to the possible necessity for certain limitations.

Some states have by statute decreed that the representatives of no one school shall constitute a majority of the board. This plan does not allow to the dominant school a representative proportionate to its numbers, but it does seem to preclude opportunity for oppression on the one hand, or suspicion and distrust on the other. Any attempt to approach this problem on other ground than that of "malice toward none and charity for all," must result in failure. If, however, the membership of any board be made up of fair-minded men willing to do even-handed justice, no matter what their individual therapeutic belief may be, a happy solution of the question results:

The examining board of the State of New Jersey is an associate body and it has for ten years earnestly and effectively performed its functions. In view of the good will existing between its members and the harmony with which it has, during its entire existence, performed its duties, perhaps no stronger argument is at hand, to present in favor of associate boards, than an epitome of its methods of work.

Not that that work is so perfect as to satisfy idealists, but to enforce upon this Confederation the fact that for the ends in view, it is a homogeneous body. The board consists of nine members, of whom, five represent the allopathic, three the homeopathic, and one the eclectic school. Its officers are Dr. Borden, president, Dr. Godfrey, secretary, and Dr. Uebelacker, treasurer, each school having this year a representative on the board of officers. The officers constitute a committee to which is delegated certain important duties. From fifteen questions submitted by each member of the board a month before the examination, this committee selects ten for use.

Again, when the members have completed and forwarded to the secretary their markings, the committee meets to review and approve the averages, and issues the final decision. The law prescribes that examinations shall be held at the capitol building of the state on the third Tuesday and Wednesday of June and September, that applicants for examination shall present to the secretary of the board, at least ten days before the commencement of the examination a written application, on a provided form, satisfactorily setting forth with proof, that the applicant is more than twenty-one years old, has obtained a competent preliminary education, is of good moral character, and has received a diploma, conferring the degree of doctor of medicine from some legally incorporated medical college of good standing when the diploma was issued, and has studied medicine four years, including at least three courses of lectures in different years. To obtain this information is one of the most onerous tasks imposed on our secretary.

The applicants, whether common school, high school, or college graduates, appear equally able to misunderstand simple statements in our own language, and the skill they exhibit in giving irrelevant answers is simply phenomenal. A meeting of the entire board is called for the evening preceding the examination and several hours are spent largely in a careful review of these applications to insure the admission of every one fairly entitled to enter. At this meeting is selected a committee to examine midwives.

No mere technicality is allowed to exclude an applicant whom a liberal interpretation of the law will admit.

It is only occasionally that our labors are lightened by humorous incidents, but last year an almond-eyed celestial with his counsel and interpreter appeared before us, endorsed by the Chinese minister at Washington and several consuls elsewhere, bearing documents apparently taken from the exterior of at least a dozen tea chests certifying, his counsel said, to his transcendent ability. Even his advertisements from the daily press, gravely offered as evidence of his learning and skill, were as gravely declined, and the desired license, greatly to his disgust, did not issue. The departure of his party was a signal for relaxation of our judicial demeanor.

Occasionally the board also sits in a judicial capacity to try cases when the revocation of a license is requested, accompanied by proof of violation of the law. Beside serving for the transaction of official duties this gathering has a distinct value in developing good-fellowship, by bringing into personal and social relations the members of the board.

On Tuesday morning, at nine o'clock, begins the series of nine examinations of two hours each, on the following topics: Anatomy, physiology, chemistry, histology, pathology and bacteriology, hygiene and medical jurisprudence, practice of medicine, obstetrics and gynecology, materia medica and therapeutics, which latter topic is conducted by the representatives of the several schools simultaneously.

Before beginning, each candidate signs an agreement, neither to give nor to accept assistance during the examination, and is given an official number by which he is afterward known. This list of names and numbers is sealed in an envelope which remains unopened until after the marking is completed and the secretary is ready to notify the applicants of their success or failure.

Marking the papers is a task of some magnitude, and involves for each examiner the careful reading and comparing, answer by answer, of 300 to 500 pages of manuscript, much of which is poorly written. The marks thus obtained on the ten answers of each candidate are averaged, and the result forwarded to the secretary for the officers to pass upon finally.

In a résumé of the work of the New Jersey Board special reference should be made to the examination given midwives.



The wisdom of permitting midwives to practise their calling is a question upon which physicians and obstetricians differ. In the larger cities of this state, especially among the foreign-born population, employment of the midwife is sanctioned by tradition and habit. The best course therefore is to regulate the custom and surround it with as many safeguards as possible. This, the statute enables us to do, and the examination, while lacking something of the formality which surrounds that of the applicant for a license to practise medicine, is still carefully and conscientiously conducted. The requirements preliminary to entering the examination are being gradually advanced, the examination itself made more stringent, and licenses are revoked whenever proof of improper practice is presented to the board.

Such in brief is our mode of work. We find no practical objection to the simultaneous examination of all classes of candidates and there seems to be no suspicion in the mind of any one that either school has been unfairly treated.

In all this work there has been united effort to do as carefully as possible, what should be done to safeguard public interest, and at the same time not to unduly hinder any worthy physician who desires to practise in the State of New Jersey. The single aim has been to ascertain whether or not the candidate was a competent and educated man.

There has been no dissention, no internal strife, and no serious differences of opinion as to methods of administration. The New Jersey Board endorses the licenses of other states having as high standards as its own, and means to maintain as great liberality on this point as is consistent with a due regard for the rights of its licensees. The real interests of the great body of the profession, including all schools are the same. To depute thirty men, in several bodies, to do the work which can be easily and well done by ten, working in unison, is a waste of energy.

The economic laws which to-day are more and more obtaining control of the intellectual, as well as the material, life of the time abhor waste. If this Confederation shall be able to formulate, and with unanimity agree upon some feasible plan for interstate reciprocal endorsement of licenses, one objection to state supervision will have been abrogated. If, in addition, it shall

devise a scheme to gradually harmonize and make coherent the confusion and divergence of the present statutes, a long stride toward a desirable goal will have been taken.

#### DISCUSSION.

Dr. James A. Egan, of Springfield, Illinois :

I would like to ask Dr. Groves if any other state licensing boards have the power to recognize the licenses of other boards besides those of New York and of Pennsylvania.

Dr. Groves :

The State of Delaware as well. The board takes cognizance of requests from other boards and compares their standard with our own, and if there seems to be any possible way of accepting their proposition, our board does it. I think the State of Delaware made its application at our last meeting, and the proposition was accepted.

Dr. W. A. Spurgeon, of Muncie, Indiana :

It seems to me that a vital question has been raised this morning in the president's address and in this paper of Dr. Groves, in that they teach the one point of reciprocal recognition in the various States. This is a vexed question. It is not only a difficult proposition, but it must remain so for some time of absolute necessity. Some of the states have been slow to get medical legislation at all. It has been almost futile in many states to secure medical legislation of any kind. The first laws that are enacted by the state, as a rule, are breeders of discord, of confusion, and largely of diploma mills. It was so in our own state; still the law we had in Indiana was that of 1885, and springing as the direct product of that law were diploma mills in our state, in Illinois, and in Michigan. They unloaded their products upon us and they were the legal practitioners of the state. Understand, whenever you have a law at all that proposes to legalize the practice of medicine, unless it is an effective law, it is a curse, because it takes a fellow who has a diploma and clothes him with authority and power and the prestige of law, and he goes out as a legal practitioner. My hostler is a legal practitioner in Indiana. He does not know whether the circle of Willis is in the top or bottom of his skull; but he obtained a license under the law to practise medicine. That is the trouble about securing reciprocal recognition throughout the states. While I served as president of the Board of Indiana, I wrote the secretaries of Kentucky, Illinois, and Ohio Boards, as well as others, knowing full well what their answers would be. But I wanted something to go before the legislature with. I received an answer from all states, most of which in part agreed to reciprocal recognition, although they said the facts were such that they could not enter into reciprocal recognition of the licenses of our state, for the reason that our law did not come up to the standard marked out by them. Now, we hope to take these statements

and facts and go before our legislature for the purpose of securing a better law or amending the present one. As I understand it, there are constructions put upon the law that admit of certain recommendations which, while they may not be absolutely in harmony with the decisions of courts, will serve the purpose of a magnificent legal glove with which something can be accomplished. Our own law provides that the board may establish such rules and regulations as will enable it to procure reciprocal recognition, and to provide for reciprocal recognition from the examining boards of other states, and to hedge against unjust and arbitrary discrimination against our own practitioners.

Taking advantage of the law, we have a resolution that enables us to require the examination of a man having a diploma, coming from other states in this country, so that the large majority of those who apply for licenses or certificates of qualification from other states, who are not citizens of our own state, must take an examination in our state. The rules of the board made under that law require it.

I want to say that the paper to which we have listened is an excellent one. We can sometimes put a construction upon the law which will be sustained perhaps, and if it is not sustained, it may not be seriously questioned, and we may obtain the best provisions which are within the possible limits of the legal provision itself.

I would be glad to see some plan adopted by which we could obtain recognition for the practitioners of my own state in other states. But while I would like to see this, I would not want my own state or any other state to lower its standard in order to get reciprocal recognition. But we can bring up the general level, and in some way obtain uniformity of action so that our interests may be mutual in all the states.

Dr. E. L. B. Godfrey, of Camden, New Jersey:

I would like to say a few words in regard to the New Jersey Medical Board with reference to licenses from other states. There are a few factors which are required. First, the applicant for a license to practise in our state must have passed an examination before the state board of another state, and that state board must have required of the applicant a definite amount of academic training; that is to say, our board will not concede anything in this regard, and thereupon we build our strong fortifications. Second, the applicant must have obtained a diploma from a legally organized, qualified medical college. Third, the examination must embrace nine subjects or branches. Again, the average percentage acquired in examination must have been 75. If any state, therefore, will show the New Jersey Board that it exacts an academic training covering a high school course, or at least a common school education, which has been defined by our state superintendent of public instruction to consist of the primary branches, and any applicant can present an academic certificate and a certificate from the state board of examiners of that state, showing that he has had a definite academic and medical training of four years, and can pass our examination

in nine branches covering so many hours, and requiring an average percentage of 75, we will recognize such an applicant or applicants because our board believes in interstate reciprocity. We have physicians all over the country who are anxious to make arrangements for the purpose of practicing medicine and surgery in this city (Atlantic City). Last year a number of them were driven out under the law. I can readily understand that when a physician, who has practised in a certain section of the country for a number of years, and whose health becomes poor and he wishes to make a change of residence, it is our duty, if we can possibly do so, to arrange that he may move into our state. If he will come before our board and pass an examination, we will admit him. While examinations are just, and we believe in them, yet, at the same time, interstate reciprocity is really due to the profession.

Dr. Coleman:

Will you give us the precise language of your preliminary education?

(Dr. Godfrey then read from the medical report of 1899.<sup>1</sup>)

Dr. James A. Egan, of Springfield, Illinois:

I would like to ask Dr. Godfrey whether the board with which he is connected will admit a candidate who has a diploma from a reputable medical college, and who shows evidence that he has received a perfect preliminary education in the common school branches?

Dr. Godfrey:

No, sir.

Dr. Gardner T. Swarts, of Providence, Rhode Island:

I would like to say, that at a meeting, held in February last in Boston, by

<sup>1</sup> A competent common-school education is required by the medical law of New Jersey, preliminary to medical license, and this board, under the authority of the act regulating the practice of medicine in this state, has established the following standard of minimum requirements:

"Candidates must be graduates from an accredited literary or scientific college, or have completed satisfactorily not less than a three years' course in an accredited high school or academy, or have received a preparatory education, covering the following branches, *viz.*: orthography, arithmetic, English grammar and composition, geography, history of the United States, algebra and physics, or what this board may consider their equivalent."

The academic standard of this Board is sufficiently high to exclude those unfitted for professional life, but not severe enough to deter suitable applicants from entrance into the ranks of the medical profession. Applicants otherwise qualified, but unable to present the academic credentials required for admission to the examination, may take a special examination before the state superintendent of public instruction, whose certificate of proficiency is accepted by the board.

The most important need in the education of medical students is the establishment of a uniform, minimum standard of academic education, preparatory to entrance upon the technical study of medicine. This subject deserves the careful consideration of the colleges, seminaries, and academies of New Jersey, and, in order that the required academic and medical studies should not extend over too long a period, an academic course should be arranged that would embrace the elementary sciences included in the study of medicine.

Of the number of candidates examined and endorsed this year, sixteen per cent. held degrees either in arts, science, or philosophy.—*Report for 1899*, p. 6. [ED. BULL.]

the Medical Examining Boards of New England, for the purpose of considering reciprocity, one of the points brought out was that those states, which had separate examining boards, one for each particular line of the profession, were not working as harmoniously as those states in which there were single examining boards with the representation of each school on the board. In Connecticut it was possible for an applicant to go before one examining board, and having failed there, to go to another examining board and succeed in passing. While the regular medical examining board knew fully what it was doing, the other two boards were not aware what the other board was doing. There was no uniformity of methods of procedure in conducting the examinations, so that when we came to consider the question of reciprocity, or whether it was policy to agitate it, it was believed that nothing could be done satisfactorily with those states which had three or more examining boards. In one state (New Hampshire) there are three boards that meet annually as one examining board, and it is maintained that they are practically one single board. In Massachusetts and Rhode Island we have representation on the boards of homeopaths and regulars. No difficulty arises in any way whatever as to the examinations. I might say, in this connection, that materia medica is represented in the examinations, and, as a matter of fact, the homeopaths pass their examination in this branch as well as members of the regular school, and we do not stop to think whether the candidates or applicants are homeopaths or not. Indeed, a great many of the homeopaths pass upon these questions more successfully than the regulars. I do not think there is any need of having separate examining boards for the purpose of discriminating between one board and the other.

Dr. N. R. Coleman, of Columbus, Ohio:

I wish to thank Dr. Groves, the member of the New Jersey Board, for the very excellent paper he has presented to this Confederation. I am thoroughly in accord with every word he says relative to the mixed board. Ohio has such a law, and I can assure the gentlemen of the Confederation that it is working in perfect accord, and working in such a manner that boards could never work if we had a board for each school of medicine. We have represented on our board the regular school, the homeopathic, the eclectic, and physio-medical. The board is represented by members of the various schools, according to the numerical strength of such schools as nearly as can be. There is not a jar, nor a hitch of any form. We are working as a unit. There is no criticizing of one board; we all stand firmly, and shoulder to shoulder in the work. The men who come before the board to receive the legal right to practise medicine, all receive their nourishment out of the same trough and partake of it in the same way, and we have the confidence that the nutrition and assimilation will be the same. I think that is the strongest point of any medical board. I do not think that anything will ever bring the medical colleges into due line except by having one board in each state, and that board should not be hampered and handicapped by the

great burden of the state board of health. It should be a medical board, pure and distinct, just as we have in some of the states. I assure you, gentlemen, it is enough work for any board to have to contend with. It occupies a great deal of valuable time, and when it comes to conferring the further burden upon the board of taking care of the health of the state, I fear there will be some part of it that is not carried out to the best possible advantage.

I am not fully satisfied with Dr. Groves' answer with regard to the minimum standard of requirements in New Jersey. If I can read English and understand their law, their minimum standard is a good common school education. That means in the majority of the states, under the present laws that exist, eight years' training in the primary or grammar schools of the states. I wish to say to him that that is not an academic education. He has enumerated the things that they will admit as maximum qualifications. What state in the Union cares how high a man goes, whether he is a graduate of Princeton, of Harvard, or of Yale, but the question arises with regard to minimum requirements, and, as the Doctor said, this means a good common school education. If this is the minimum requirements of the State of New Jersey, then they have as low a grade as any state in the Union. I have the highest regard for the New Jersey law. I am responsible for the formation of the Ohio law, probably more than any other man. Of course, somebody has got to do the drudgery, and I want to say that we copied quite a great deal from the New Jersey law. But when it came to the point of minimum qualifications for entrance to medical colleges, I said it is simply worthless and I so regard it. The standard should be higher. If not, 80 per cent. of the people of the State of Ohio can enter a medical college; 80 per cent. of the people of New York can enter a medical college. And so it is with New Jersey. When it comes to the question of preliminary education, I think that Ohio can stand equal, if not superior, to any other state in the Union. She has more public high schools than any state in the United States; she has more four-year high schools than any other state in the Union. New York State has more high school students than Ohio, but she has ten thousand private high school scholars, whereas Ohio has but two thousand. I speak from the records of the Commissioner at Washington.

Let me repeat, that the New Jersey Board is doing as good work as any board in the United States, but their entrance requirements are not what they should be, and I hope and trust that they will ere long go before the legislature and demand what they want, in order to place them upon the basis that they should rest.

Dr. E. L. B. Godfrey, of Camden, New Jersey:

The New Jersey law was framed ten years ago, and I would like to ask Dr. Coleman when the Ohio law was framed.

Dr. Coleman:

On the fourteenth day of April, 1900.

Dr. Godfrey (continuing):

I desire to call attention to one point. I doubt very much if three per cent. of the members of the medical profession are college graduates. We have the highest type of public schools in New Jersey. We are expending a large amount of money in the state situated between New York and Philadelphia, the two great educational centers; yet, last year, in looking over my report I find that less than five per cent. of the applicants are college-trained men, men who cannot admit that they have been thoroughly trained in an academic way unless they are college graduates. Of course, there are exceptions to this. It speaks volumes. Year before last, or last year, I think it was down to two per cent., while this year it is up to about five per cent. That clause in our law, I admit, should be changed. Our board is an old one, while that of Ohio is a new one. Ohio has all the modern fringes in its law.

Dr. Augustus Korndoerfer, Philadelphia, Pa. :

A word or two in reference to some points that have been brought out in the paper and in the discussion. I think it is our duty in each state to examine into the conditions pertaining to that state and adapt the work in each individual state to those needs. In Pennsylvania, in New York, it has been found desirable to have three boards. I honestly believe that three boards work best in every state, if these boards are controlled by the supervising council. In our state the three boards have worked admirably; they have worked and are working in perfect harmony. The president of each board represents the board in the medical council, and the work of the three boards is done in unison. There is none of the jarring that has been referred to in New Hampshire and Vermont, and it must be because of their lack of coordination. They have not been constituted as three different bodies. In all such work there should be coordination of the different bodies, under the management of one generic head, which, in New York, is the board of regents; in Pennsylvania, the medical council. The work is not only arranged systematically, but satisfactorily and justly, and I feel that the more I consider this subject, the more I am impressed with the absolute justice of the three boards in the State of Pennsylvania, and I believe that just as much justice reposes in these three boards as in any one board. While we can work harmoniously in one board, it is not a question of legislative representation; it is not a question whether we have 100 homeopaths to 500 so-called regular practitioners, or 50 so-called eclectic practitioners, but that we should have a definite proportion to carry out any representation. It is a judicial matter. We decide upon the qualifications of the men, not upon the number of men, or the particular school that they represent. We decide upon the qualifications of the man, and have nothing to do with the 100 or 1,000 men who are practising in his school. The judicial decision is, is this man competent to practise medicine? This may be wrought out differently in different states according to the character and disposition of the people of those states.

Dr. Charles A. Lindsley, of New Haven, Connecticut:

I would like to ask the last speaker one question, namely, how the supervision, which effects this coordination, is exercised? Many of you doubtless know that we have three distinct boards in the State of Connecticut, and, as has been said, these boards act independently of each other in every respect. Their examinations are correspondingly different, and, as has been said, when the applicants fail to pass their examination before one board, they can appear before the other board and successfully pass the examination.

Dr. Augustus Korndoerfer, of Philadelphia, Pennsylvania:

In the State of Pennsylvania, and I think I can say in New York also, the medical council in Pennsylvania supervises the arrangements for all examinations. The questions in Pennsylvania are furnished by the three boards, each board sending to the medical council a full set of questions on each branch in which the applicants are examined. Three sets of questions on all other branches are taken in the same way by the members of the medical council. The medical members of the council take up the three sets of questions and arrange from the three sets one set which is accepted by the medical council. They become the official questions for the next succeeding examination. These questions are furnished the president of each board. The president of each board on the day of the examination, at the hour of beginning the examination, opens the envelope containing the questions of that particular branch. These questions are given out to the members of the three different schools at the same hour, on the same day, so that all have the same questions, at the same hour, and on the same day. These questions are answered or not, as the applicant is able, and are marked by each individual member of the board who has charge of the work. All questions are determined in the medical council and are furnished to each of the three boards, so that each of the three boards has the same questions. The law requires that no man can come up for another examination in less than six months from the time of failure. If he fails, he must wait six months, and then appear before the school of his election. If an applicant should fail in his examination before one board, he will not be received by another board. The medical council regulates that. Since we are speaking about that part of the work, I will simply say that we now have a law which prevents a man from coming back to us and procuring a license there, after he has gotten a diploma in Pennsylvania or any other state and has failed in our examination. We have refused licenses to all such persons.

Dr. E. B. Harvey, of Boston, Massachusetts:

I would like to ask the Doctor if each of the individual boards in Pennsylvania has the power of saying whether this or that man is qualified to practise medicine and to issue to him a certificate in case he is competent to do so?

Dr. Korndoerfer:

Each board determines a man's qualification to practise medicine; neither of the boards issue licenses, but the medical council does this.



Dr. Harvey:

I would like to ask the Doctor, again, if he does not find in his state that the percentages of registration and rejection by the different boards vary greatly? Is there any uniformity?

Dr. Korndoerfer:

In answer to the Doctor's question, I will say yes and no. One year, in our board, it being a homeopathic board, we rejected only about two per cent. of all applicants because they all stood well that year.

Dr. Harvey:

Stood well in the mind of one board, but how do you think they would stand in the minds of the other boards?

Dr. Korndoerfer:

The questions and answers of applicants to practise medicine are on record, and can be revised at any time by anybody. As the general council revises the questions, it generally considers that the answers have been practically equal in one school as in the other.

Dr. Surgeon :

I would like to ask a question. Does each examining board keep and maintain a separate and distinct set of books and records? Does each board have its separate clerk?

Dr. Korndoerfer :

Each board has its specific secretary, and each board transacts its own business. All the business of each board is turned over to the state. The state takes charge of it, through the medical council. All official records are returned to the state. Each board takes charge of its own business, keeps its own records, and makes return to the state of those records. All papers, after examination and marking, are turned into the state. The state takes charge of all of these immediately after examinations. If there is any question about the quality of the marking, the papers are subject to revision by each board, or by the medical council.

Dr. Godfrey :

All the difference I can see between the Medical Council of Pennsylvania and a regular state board is that the medical council sits in judgment upon the returns from the boards, and has two or three laymen to help them out.

Dr. Korndoerfer :

That is very important, because you find that doctors are not always as clear-headed from a legal point of view as are lawyers.

Dr. Groves (closing the discussion):

I believe that practically we have to give a twist to the statutes sometimes in order to obtain the best results. Our statute is an old one. It has been criticized by the board, as well as by other people, on the ground of its preliminary requirements. It was passed at a time when it was hard to secure

legislation on any matter, and it was passed with that good common school education clause in order to get it through. The interpretation of the phrase "common school education," is given by our state superintendent of public instruction. It holds as legally as if it were in the statute. It enables us to give what has been designated as a twist, and we do not accept a man who comes up with an illiterate and poor common school education. He has to have what the highest educational officer of our state has defined as a common school education, and it is a good average education, and will hold until we can get something better for which we are striving.

A BRIEF REVIEW OF THE MEDICAL CURRICULUM  
OF THE UNITED STATES, WITH SPECIAL REF-  
ERENCE TO THE DEFECTS, AND INDICATED  
MODIFICATIONS AS DEMONSTRATED BY  
THE STATE MEDICAL EXAMINATION  
FOR PENNSYLVANIA.<sup>1</sup>

By HENRY BEATES, JR., M.D., of Philadelphia, President of the State Board of Medical  
Examiners of Pennsylvania.

*Mr. President and Gentlemen.*—To state that the strength of a chain is in its weakest link, is to indulge aphorism especially applicable to what, in this country, constitutes medical education, or, differently expressed, the medical curriculum.

What this has been, is, should, and will be, is more properly indicated after asserting that the important function accorded it, is the proper education and supply of competent clinicians. By none is it more fitting that so momentous a question engage serious and disinterested consideration, than this body, representing, as it does, those peculiarly able to judge, by reason of the high trust and responsible duty imposed of conscientiously administering those laws which, by governing the practice of medicine, protect the laity from the direful consequences of so-called doctors, who are conspicuous for possessing the rights accompanying the possession of the diploma of a science and art, about which they know little or nothing and are, consequently, both incompetent and dangerous.

The doctor is the product of the curriculum, and what the curriculum has been must be recalled in order to understand why so anomalous a relationship exists, as characterizes medical education and medical legislation. It certainly implies that medical education is not what it should be, and that in order to make it so, medical legislation is necessary. The doctor—to whom a public, ignorant of the enormity of the interests involved, accorded without question the rights and privileges to practise—represented, until very recently, two types: *A*, the spontaneous, who, after perusal of a medical epitome and with-

<sup>1</sup> Read before the National Confederation of State Medical Examining and Licensing Boards, Atlantic City, June 4, 1901.

out any medical college training, simply opened an office and proceeded to practise; *B*, the full-fledged or possessor of a "medical diploma."

How much superior the latter was to the former can be conjectured from the fact that type *A*, finally ceased to exist. But when it is recalled that the public for years patronized those who had not been regularly trained, and did not or could not distinguish between those presumably fitted to fulfil the clinician's duties and those who were not, there is recognized a factor which is still potent in preventing the achievement of the purposes for which medical legislation became necessary. Of what was the full-fledged or type *B* doctor the exponent? A course of study conventionally adopted as the representation of that which was assumed to be necessary to the competent physician. The, by this time, slightly less ignorant public, accepted this without a question and reposed in its representatives that trust and confidence which found health and life and the greatest interests of existence placed in its incompetent care. No law had evolved that supervised the curriculum, and institutions sprang into existence just as did the now defunct spontaneous doctor. These were called, and recognized to be, medical colleges. In the beginning they were few in number and did rigidly administer a curriculum which, in the recollection of the greater number of those present, supplied the following, which passed for medical culture: two years of the study of medicine was made a rule for obtaining the diploma. The student was expected to read medicine with a practitioner and attend medical college two sessions—not years—sessions. These sessions began on October 1st and ended about the latter part of February. The first session and the second were alike, in that the seven subjects of anatomy, physiology, chemistry, materia medica and therapeutics, practice, obstetrics and surgery were covered entirely in the less than five months of time, devoted to actual medical college work. The instruction was almost exclusively didactic and the clinic of such character as to claim little more than mere mention. To enter the medical college as a student, required the payment of five dollars and the purchase of the seven professor's tickets; to emerge with the diploma, necessi-

tated the possession of two sets of professional tickets, passing a so-called examination, and the payment of a graduation fee of about thirty-five dollars. How the branches were taught must be borne in mind, especially, as at this moment, it constitutes a factor, in Pennsylvania at least, in determining the eligibility of candidates for examination for license.

The fundamentals, anatomy, chemistry, and physiology, were very superficially treated as abstract sciences. The chief feature was descriptive, with little or nothing of the applied. To merely memorize series of such comparatively valueless anatomical facts as the enumeration and naming of branches of arteries, veins and nerves, or the number of bones composing the carpus or tarsus, so that a study of dogs and cats would serve the purposes of the examination room as well as work on the human cadaver, best describes the utterly inadequate character of the method of instruction.

Laboratory training in chemistry, embryology, histology, physiology, pathology, and hygiene were unknown, and practical instruction in obstetrics, practice and surgery, not dreamed of. The pecuniary profits of the medical college and the enormous fees of that unquestioned authority, the professor, soon determined the establishment of an unnecessarily large number of the "Temples of Aesculapius." The public, ignorant of the true condition, directly and indirectly accorded its influence, so that legislatures granted charters and legalized medical colleges almost as frequently as application was made. Then that potent factor for either good or evil competition, naturally became operative and, unfortunately, identified itself on the side of retrogression, so that within a comparatively short time after the medical college and its conventionally established curriculum, became a fact with the public, its original inadequacy was made more and more so, until not only were the original seven branches supervised by teachers themselves incompetent, but individuals were admitted as students, who were so illiterate and ignorant as to be utterly incapable of acquiring a knowledge of even the principles of medical science, much less its art, had opportunity for that been given.

Worse than all, these illiterate and densely ignorant gradu-

ates (shall we employ the term?) were granted the same diploma that conferred the right to practise upon those who, conscientious and sincere, mastered the curriculum, such as it was, and from the conditions obtaining, merited their reward.

The prevalence of such a state of affairs resulted in that resort to protection from evil which is so peculiar, when its intrinsic character is contemplated: "Legislation for Morals." Then medical law evolved and became a factor in determining higher medical education. The introductory to the Act of Assembly governing practice in Pennsylvania, best implies that which is involved, and reads as follows:

WHEREAS, "The safety of the public is endangered by incompetent physicians and surgeons and due regard for public health and the preservation of human life demands that none but competent and properly qualified physicians and surgeons shall be allowed to practice their profession, etc., etc."

From this it is evident, indeed cannot be gainsaid, that one or other of the following conditions characterize the medical curriculum; that the curriculum does not teach and does not afford ample opportunity for an intelligent student to make of himself one fit to practise medicine, those institutions which claim to administer an adequate curriculum, confer the doctorate upon students who do not fulfil the requirements, alike with those who do, or the curriculum is not complete or adequate or, both obtain.

Sufficient has been said now to consider the work of the medical examining board. That work discovers what the medical curriculum is, and first of all is apparent the fact that there is wanting, that systematized and graded course of study, without which education, in the true sense, is impossible.

The fundamental sciences are not properly taught as the standard of culture of to-day demands. For illustration take anatomy: Is this branch properly taught with due stress laid upon embryology and histology? Are the subdivisions, osteology, syndesimology, myology, etc., etc., elaborately taught, and the student made familiar with the physical principles involved and necessary, when studied with function, to intelligently locate, for example, luxation, fracture, etc., and properly institute treatment? Are the lectures and laboratory work coordinated with physiology, and instruction in this, with path-

ology, so as to conduct the student in accordance with pedagogic principles, step by step, and in logical sequence, from principles to practical phases of these various sciences? Is the blood, for illustration, the subject of elaborate instruction by the embryologic teacher, in the department of anatomy, at the same time that the histology, physiology, pathology, diseases and treatment of this tissue are being taught?

Again, are the branches and these subdivisions, necessary for a cultured physician competent to discharge his fearful responsibilities, so much as included in the curriculum? In dermatology, is a knowledge required sufficient to enable our physicians, who inspect the public school children, to differentiate the usual contagious diseases and the syphilodermata? And what about insanity, pediatrics, otology, laryngology, ophthalmology, gynecology, etc.? It is not expected that a high degree of proficiency, comparable with that of the specialist, be a condition for the degree, but certainly sufficient familiarity with these topics to secure safety from incompetence on the part of any "M.D." who might be consulted by those suffering from such ailments.

To these inquiries the examining board must reply in the negative, and in so doing assert that the medical curriculum is not adequate to meet its requirements.

What of the ability of the student to master the requirements of the curriculum of the present which, while vastly superior to that of five years ago, is still far from complete?

Illiteracy and ignorance being accorded the doctorate by the medical college, determined medical legislation, and, while medical law has improved the teaching of what comprised the curriculum, has it indirectly (and that is the only manner in which it can correct) augmented the course of study and eliminated from the student ranks, those who cannot comprehend medical science?

The law of Pennsylvania requires the candidate for license, to be possessed of a competent common school education; the diploma of a regularly incorporated medical college is also essential, and that the diploma is a guarantee of the genuineness of the medical college work, is attested by its recognition, as a credential, by the medical council which grants to such a candidate the right to be examined by the board.

Let us see how conscientiously the medical college discharges its responsible duties, and whether the public is just in reposing confidence in the institution, and lending its aid in defending it against measures proposed to compel it to be what it professes to be.

In 1896, two years after the law was in force in Pennsylvania, a candidate presented to the medical council his credentials. These set forth, attested by college authority signature, that the candidate was of good moral character, proper age, possessed of adequate preliminary education, and sufficiently learned in medical science and its art, safely to engage in practice. To the question "Describe a complete physiological revolution of the heart?" he answered: "The air entering the lungs cause the action of capillaries to propel the blood through the veins to the heart, through the ventricles to the auricle."

Another qualified candidate answered as follows: "The auricles contract they first fill then have two sounds and one pause then the ventricles fill when the auricles contract then the auricles contract and empty into the aorta."

To the question "Describe the pathological changes in senile gangrene," the following reply indicates the fitness of the candidate to practise, as well as the value of the diploma and moral standard of the faculty, whose names appeared thereon: "In senile gangrene, the tissue undergo changes by the extravasation of leucocytes and cellular tissue change, which causes death to the part."

Scores more could be cited, but time forbids.

1898 discovers an improvement to this extent:

Question: "Summarize the function of sweating and explain the office of each physiological factor involved?"

Answer: "The function of sweating are, the kidneys which carry off the sweat that is not gotten rid of through the skin the pores are also means of getting rid of the sweat and it is also absorbed by the hair follicles." This is by no means an exception, and, instances of weak links, by the score, can easily be presented to prove the strength of our chain. In 1899, preliminary culture required by that medical college which had, bear in mind, conferred the doctorate, is indicated by the following



letter: "Wen does the Bord meat and whare?" and medical culture by this answer to the question: "Name each anatomical structure involved and describe the changes occurring in tubercular arthritis." Answer: "The lungs become involved when the tubule (tubercle?) is contracted it involves the spleen becomes congested, the liver being inflamed."

Sufficient has been said, and it is not doubted that the experiences of the Pennsylvania Examining Board are no exception to the many here represented.

We then see what the curriculum has been, and is, what it should be is self-evident and is tersely stated as follows: The fundamental branches of anatomy, physiology, and chemistry should be taught much more comprehensively and with far greater thoroughness. The applied features of these should receive the major portion of both time and effort. Their bearing upon the more advanced subjects of practice, pathology and therapeutics, should receive especial attention. The major branches should be taught by ample laboratory and clinical instruction, the student personally doing that for which he is ultimately licensed to practise. Several of the now so-called specialties should be conditions for the degree. Of greater importance, none but students, adequately educated, should be permitted to enter our medical colleges; last and more important than all, ample time should be allotted for the accomplishment of these requirements. One more topic before concluding: An absurd proposition offered as corrective of these defective conditions is, that the identification of "educated students," "college bred men," with the curriculum as it is, will supply competent clinicians.

Nothing need be said about so specious an argument, further than to characterize it as the superlative of sophistry!

What is essential is first, an adequate curriculum, properly administered; secondly, only such students permitted to matriculate as are, beyond all question, possessed of proper preparatory education.

When will these essentials exist, and under what conditions?

When the medical college reigns supreme as the legitimate center of medical culture and is equipped with properly trained

professors, perfected laboratories with apparatus, and competent instructors who are men of merit, and not those of inferior ability, the latter of whom too frequently occupy positions of responsibility because of the operation of nepotism, social, or financial influences (in a bad sense). More important than all, when the public is educated to the point of being able to recognize real worth, and refuses any longer to tolerate the gilded farce which has necessitated medical legislation.

1504 WALNUT ST.

#### DISCUSSION.

Dr. Gardner T. Swarts, of Providence, Rhode Island :

The experience detailed by the Doctor in his paper are those of every board that conducts examinations, and it is a deplorable state of things, one which will go on for some time to come. It is well known that the schools deceive us. We are dependent upon laws which provide that we shall accept a diploma from a recognized medical college, and our standard is made by ourselves. We are entirely dependent at the present time upon the prospectus issued by each particular school. We may find in one particular school the requirement of a four years' course of eight months each. We also find that it provides for a preliminary high school education, and we may perhaps find that the school is not quite up to the standard. We require what is known as a supplementary examination, the same as they do in some other states. We find that one school requires a course of four years of six months each, while another requires a four-year course of eight months each. A college may be in good standing, so far as its preliminary requirements are concerned, until these examinations take place, so that it would seem to be desirable that we should inform each other for the purpose of cooperation in the absence of obtainable knowledge as to the standard of requirements of different schools, in order that we may reciprocate, if possible, by exchanging ideas as to our experiences with each individual school. In this way the boards can prevent men from practising medicine who are illiterate. One of the requirements of our board has come up recently, within the last two years, namely, that we will not accept diplomas from a college or school which is located in a town where the population is less than 50,000. Graduates of the schools at Dartmouth, at Ann Arbor, and other places strenuously object to this discrimination, but it is well-known that these schools lack the clinic advantages of the great medical centers. We believe these schools should strive to increase their population to 50,000 or more, or else let the graduates go to other schools to receive instruction and graduate from them, or let such a school or schools cooperate with some other schools where they can obtain more clinic advantages. Why should we encourage students to go to these schools and spend their money and time to obtain knowledge and acquire skill that they can get

somewhere else? The only way to obtain reciprocity is by the medical examining boards of different states demanding a higher standard of education throughout, including clinic advantages, etc. I think it would be a very desirable thing for us to exchange correspondence to bring about a condition whereby all of us can receive information as to the standards of the various schools.

Dr. Suiter :

I would like to ask Dr. Swarts if the Rhode Island Board excludes from examination the applicants who are graduates of the Medical Department of the University of Michigan at Ann Arbor?

Dr. Swarts :

Yes, we do, or any other school that has not good clinic advantages.

Dr. Suiter :

In other words, towns not having 50,000 inhabitants have no standing whatever with your board.

Dr. Egan :

I would like to ask Dr. Swarts if his board has legally enforced this requirement?

Dr. Swarts :

Yes, sir. Our law states that the applicant shall present a diploma from a medical school that is recognized as reputable by the state board of health. Of course, the board may be turned down by the Supreme Court for enforcing this requirement, but thus far it has not been.

Dr. Coleman :

For the information of the gentlemen, I might state that two years ago the Supreme Court of Ohio rendered a decision touching on that form of requirement, and held that all these laws were police measures, and that the state board of health had the power to determine and to say whether a medical college is, or is not, in good standing. The Ohio law reads that "a medical college shall be in good standing as determined by the board." That is the exact language of the law, and upon that point the decision was rendered by the Supreme Court. I simply mention this because I think it bears directly upon the law that Dr. Swarts has just referred to. I believe the action of a board in such a case will be sustained. That has been the experience of physicians in the State of Ohio.

Dr. E. L. B. Godfrey, of Camden, New Jersey :

This discussion brings to my mind a little history which shows that history repeats itself. New Jersey, in 1772, during the colonial period, established certain state requirements preliminary to the practice of medicine, and these remained in force until 1854. In that year the representatives of three colleges in Philadelphia and two in New York, appeared before the State Society of New Jersey, and asked that their graduates be exempted from examination by the state society. After a considerable discussion and a

great amount of influence had been brought to bear on the matter, the board exempted the graduates from these colleges in Pennsylvania, and the two New York colleges, from examination. The result was that we were looked upon as favoring certain colleges. It practically amounted to this, that students were offered premiums. They were told that if they went to a certain college and graduated, they could practise without being subjected to an examination; while if they went to other colleges they would have to submit to the state examination before being permitted to practise. As a result of this favoritism, the law was repealed through the efforts made by the other colleges. I do not believe boards have a right, even though the legislature may grant it, to discriminate against a college that is legally incorporated. The Supreme Court of Illinois does it, I know, but it makes favorites of colleges. It says to the students of that state, if you will go to certain colleges in Chicago, we will pass you; if you go to the Tulane University at New Orleans, we won't recognize you; you cannot pass our board without taking an examination. Now, in New Jersey we make the examination the basis of practice. If a young man comes before the New Jersey board, passes the examination that is acceptable to the board under the law, we license him. We require him to submit credentials of the institution from which he came, showing that he is a graduate from a college in the state that has a legal standing. I firmly believe that were New Jersey to show favoritism toward certain colleges, as is done by Illinois and other states, our law would soon be repealed. With us, as I have said, an examination is the test, and that will stand law and everything else.

Dr. William A. Spurgeon, of Muncie, Indiana :

The doctrine expounded by the last speaker would be all right if the board were empowered by law to examine every applicant, but for such a doctrine to prevail in Indiana would be simply to people the state with the worst quacks that the world ever saw. It would breed diploma mills in every ravine and mountain top. We tried it. It won't do at all unless you place the applicant on his individual merits, raise the standard of absolute qualification, as tested by a thorough examination. We have legally chartered institutions in Indiana that it would do your soul good to visit. We have one that I can call your attention to that is a daisy. (Laughter.) The birds build their nests over the heads of the students, and the feathers and the paper from their nests are thrown over the floor. I saw this only a few days ago when I visited the institution. They had maps on the wall and charts and pictures which would drive the ordinary matriculant crazy to look at them for the limited period to which they subject their students in acquiring an education. It will not do for a minute. We must not raise the question because the state has chartered a certain institution; some states will charter anything.

Dr. James A. Egan, Springfield, Illinois :

As I understand the laws of the State of New Jersey, the state board of medical examiners is empowered to require the presentation of a diploma from a

medical college in good standing with the board. According to the decisions rendered in Illinois and other states, it devolves upon the board to determine what constitutes good standing and to say what colleges are, and are not, in good standing. The New Jersey board, however, cannot demand evidence of attendance upon more than three courses of lectures. The law of Illinois gives the state board of health discretionary power in this matter, and the board has adopted a resolution to the effect that it will not consider in good standing, after January 1, 1900, any medical institution which does not require of all students (excepting graduates of reputable colleges of arts and sciences, or of reputable colleges of dentistry, pharmacy or veterinary medicine, to whom one year's advanced standing may be granted) as a condition of graduation, an attendance on four full courses of lectures of at least six months each, in four separate years, no two courses commencing or ending in the same calendar year of time.

It is thought that this resolution will be sustained by the courts should an issue be raised.

Dr. Charles A. Groves, of East Orange, New Jersey :

For the New Jersey board I will say that, according to the statute, we have a right to a certain extent to determine what colleges are in good standing, and we do it. We do not admit to our examinations any graduate and college that do not live up to the requirements of the American Medical Association or the American Institute of Homeopathy. We require under the law, three courses and four years of study, and this requirement will be gradually advanced. But the question of rejecting colleges, where a fairly good education is to be obtained, upon slight grounds, seems to be unwise. In the present state of our discussion, it shows that there is a great diversity of opinion, and we cannot lay down any hard and fast rule which will apply to the State of New York, to the State of New Jersey, and to New Mexico. We cannot do it. This discussion will have a beneficial influence towards reaching ultimate perfection, which we have not reached yet, and may not do so for three or four years.

Dr. Beates (closing the discussion):

I have not very much to say in my closing remarks, for the simple reason that much of the discussion has very little or no bearing upon some of the points brought out in my paper. I can only refer, however, to the principal fact which has been brought forward, namely, that every state has a standard of its own, and that standard varies. What do we mean by a three-year course of medicine? That is what I want to know. What is meant by a four-year course of medicine? We are talking conventionally about something or other that has not been clearly defined and has never assumed a legal molding. It is a sort of go-as-you-please system of every college and of every state that has an incorporated medical college. What is the function of an examining board? Nothing more than to ascertain what is the curriculum, the system of study that makes doctors. It is conventionally

admitted to be that. That is its specific purpose. We can go no farther. After we have found out that college A, B, or C is a diploma mill, we can report to the police authorities that the concern is not doing its duty and is not acting in accordance with the charter granted it. I wish every man here could go to Harrisburg and look at the papers on file of the men whose diplomas the medical council of Pennsylvania, by reason of the law, is obliged to recognize as legitimate credentials, securing to them the right of examination. It would be a revelation to them.

THE COOPERATION OF THE MEDICAL PROFESSION  
OF THE UNITED STATES WITH THE NATIONAL  
CONFEDERATION OF STATE MEDICAL EX-  
AMINING AND LICENSING BOARDS, IN  
ESTABLISHING INTERSTATE RECI-  
PROCITY FOR THE LICENSE TO  
PRACTISE MEDICINE.<sup>1</sup>

By EMIL AMBERG, M.D., Detroit, Mich.

It was with a feeling of embarrassment that I accepted the kind invitation to read a paper before this confederation. There certainly cannot be anything new that I may be able to present; however, since the committee of the Wayne County Medical Society, of Detroit, has become a kind of a center for the exchange of opinions along the line of interstate reciprocity for the license to practise medicine, it may be of interest to hear some of the ideas which were furnished to this committee and stimulated the movement.

Before entering into the subject proper, I take great pleasure in expressing my thanks—and I am sure our committee and our society are in accord with me—to all the medical boards and state medical officials in the United States. In fact, the movement is partly based on the willingness of these authorities and on the interest they take in the matter. The question might be raised whether the whole movement might not be better left to the National Confederation instead of enlisting the whole medical profession in the same. We can answer that the aim of the National Confederation of State Medical Examining and Licensing Boards, their efforts and their works are, no doubt, highly appreciated by the medical profession. Two points, however, make it desirable that the whole medical profession stand shoulder to shoulder with the boards: First, the feeling of equal citizenship, and, second, the fact that the changes toward an improvement have to go through the legislative bodies.

Concerning the first point, we must consider the peculiarity of our country and our form of government. As to the second

<sup>1</sup> Read before the National Confederation of State Medical Examining and Licensing Boards, June 4, 1900, at Atlantic City, N. J.

point, we know that the laws necessary for our purpose must be enacted voluntarily. If it can be expected from every citizen that he understands why he expresses his will on the proper occasion, it must with right be taken for granted that the learned members of the medical profession know why they will depart from the old rules and why they will assist the members of the various boards in their efforts toward an improvement.

There exists no doubt that the advancement of medical science in any country demands a progress in medical education, and, if it were only for this reason, a standstill cannot be tolerated. But let us consider whether we must not improve, if it were only for the purpose of reaching that point which would place the medical profession in the United States on an equal footing with those in the most advanced countries. Physicians are the products of the medical schools; therefore we may speak at the same time of the medical schools. Permit me to quote from quite a number of authors, because I think in repeating their remarks we will have a good idea of the opinion of the medical profession on the subject.

Mr. James Russell Parsons, Jr., in his monograph on education in the United States, gives the number of medical colleges in the year 1899 as 156, excluding post-graduate schools, with 24,119 students. The *Medical Record* (March 17, 1900), quoting Mr. Parsons, says: "A foreigner, reading this statement, and unacquainted with the facts of the case, would come to the conclusion that the medical education in this country was in a particularly healthy condition. If, however, he were of a curious disposition and would dive more deeply into the matter, his opinion would assuredly undergo a radical change."

It is evident that the standards of 156 medical schools vary a good deal. Their sufficiency at present must be tested by the boards. The *Philadelphia Medical Journal* says well (in the issue of April 14, 1900): "Medical examining boards have a distinct power and well-defined duties in regard to these matters; they can refuse to recognize the diplomas of colleges that give insufficient instruction. Every examining board should have an 'inspection that inspects' every school whose diplomas they agree to recognize."



I, for my part, go even further. I do not believe in private medical schools at all. It is the duty of the state to provide for the education of physicians through first-class medical institutions. The state can do this through boards which are independent of party politics. Parsons, in speaking of the meager endowment of medical schools corresponding to those made to other educational institutions, says: "Fortunately, the closing year of this century seems to indicate a change in the attitude of philanthropists toward medical schools." In my mind there ought not to be any necessity for the medical schools, institutions of vital importance for the people, to be dependent upon alms. Dr. Roosa, president of the New York Post-Graduate School, is reported to have said: "I hold that the state ought to furnish sufficient funds for the adequate and thorough instruction of all the pupils in every medical institution already legally organized, and for such others as the increase of population may cause to be established under the regulation of the state." Contrary to Dr. Roosa, I hold that the state has not the right to support private corporations at the expense of all citizens. If the different political divisions would take charge of the medical schools there would be a decrease in the number and an improvement in the quality. I naturally admit that we have some good private medical schools; this, however, does not change the aspect and does not excuse a system which has detrimental effects upon the medical profession and upon the public. Conditions at present equal a hazard game. It is not necessary for me to indulge at length on this subject before this body. I may be permitted to quote only the remarks made by the *Boston Medical and Surgical Journal* (October 12, 1899), which, in speaking of "uniformity requirements," says: "We need, first, to reform our medical education, and, when that is satisfactorily done, uniformity of standard will be attained without recourse to legislation. We are, therefore, strongly of the opinion that the real question at issue is to regulate the character and attainments of the men who are about to study medicine, rather than to attempt to legislate into positions of respect men who, from the beginning, were unfitted for the duties and responsibilities of their profession."

In establishing reciprocity, the question of preliminary and medical education is of paramount importance, and there cannot be an independent member of the medical profession who would not admit that uniform training is the foundation of uniform rights in all states and territories. We fully agree with Dr. William Warren Potter when he says, under the heading "Equality of Standards a Basis for Reciprocity:"<sup>1</sup> "The only equitable basis upon which reciprocity can be established, that appears both feasible and practicable, is that of equality of standards for admission to the study and practice of medicine. This implies an equalization of the preliminary requirements of medical students and a uniformity of applying the tests, a uniform period of collegiate training, including uniformity of methods of teaching, and finally an absolute similarity in the method of conducting state examinations and granting licenses." Dr. Potter's ideas are known to you, no doubt. I wish they were known to the whole medical profession in the United States.

I might mention here, that it is distinctly understood by all parties that it is not expected that any board lowers the standard of requirements. Also some other points should be considered. I may be permitted to quote part of a letter which I received from the Maryland State Board. It reads: "The board is not, at present, disposed to enter into reciprocal relations with other states without receiving some power by exercise of which an undesirable physician could be kept out of Maryland; a man might be all right when he received your license, and subsequently become very bad." This letter I regard as very important. The board acknowledges the necessity of exercising some kind of a control of the moral character of a physician, if I understand the letter right. There does not exist any doubt that such a control is very desirable, even necessary. In this respect the answer is very suggestive to all boards and legislators. On the other hand, I cannot understand that this question touches directly upon the interstate reciprocity agreement. If a man is undesirable in one state he certainly is undesirable in all states—not less so in his own state. We have here to deal with two questions

<sup>1</sup> "Reciprocity in Medical Licensure: a Plea for Interstate Indorsement." The Bulletin of the American Academy of Medicine, Vol. III, No. 1.

which are practically independent one of another, and the disapproval of existing conditions concerning one point does not excuse the refusal to cooperate in another.

There is also a letter from another board in my hand, the contents of which will be of great interest. It reads, in part: "We, as a board, have made it a rule to issue no license to practitioners, except in compliance with the requirements of our own laws. Owing to the fact that some states which have good medical laws seem to have boards that are very lax in enforcing their requirements, we have deemed this course not only advisable but absolutely necessary in regulating this matter in our own state. So long as the authority for authorizing a license is invested in the members of the board to the degree that it is in many of the states, we do not feel that we can consistently enter into any interstate reciprocity, even if we had the legal power to do so. This board has just received a personal recommendation from the president of the ——— state board of medical examiners, in behalf of a man whose sole claim for recognition was a diploma issued by one of the most disreputable "mills" in the country. As long as state boards are so entirely indifferent in performing their duties as the one above mentioned (the applicant is a registered practitioner in ———), we are distinctly opposed to reciprocity with such people. It is needless to say that the applicant was refused a certificate."

My remarks made before apply also to this letter. Nobody expects that any board recognize diplomas of diploma mills. The boards can agree upon a few colleges the diplomas of which they will recognize, without including the others. It should not be difficult to select some medical schools which require a high preliminary education and which guarantee a thorough medical training.

Although we recognize the commendable work done by the Association of American Medical Colleges, the boards, in my mind, cannot recognize all the colleges of the same. The association may be a very necessary institution, but as far as the profession in general is concerned, and also the public and the boards which form the connective link between the public and the profession, there does not exist a close connection between them.

As I expressed it on another occasion, in establishing interstate reciprocity the process of evolution has to be followed, in order to have a sound development. There is no doubt in my mind that by steady work and perseverance the desired results will be attained in the course of time. The question, however, arises, whether anything can be done immediately toward the end in view. It appears to me that we may answer this question in the affirmative. In a communication to the *Medical Examiner*, of New York, I took occasion to state my view concerning the temporary division of states into six groups, taking as a basis the preliminary education, the medical education proper, and the final state examination. This view was commented upon by the *New York Medical Journal* of January 20, 1900. Parsons, in his work,<sup>1</sup> says: "The present needless multiplication of standards, however, is most unfortunate. Instead of a separate standard for each political division, two, or at most three, standards should answer for all."

It assuredly would be preferable to have two or three groups instead of six, but I doubt whether such an advanced step can be taken at present. I admit that six groups are a little numerous, but six are preferable to fifty-one or more groups. There is no doubt that the formation of groups would not only benefit a great part of the medical profession immediately, but also would help toward the final aim. No better proof can be brought forward in favor of this view than the welcome and timely action of the boards of the New England States. There was a meeting held at the State House at Boston, on February 1, 1900, which, in my mind, is of fundamental importance in the history of medicine in the United States. Not too much praise can be given to the originator of the meeting and to those who participated in the same. We read in the report that "the object of the meeting was presented by the president, who stated that it was generally conceded that reciprocity would be desirable, and suggested the need of discovering the best means of guiding the legislation in order to unify the laws governing medical practice in the different states. Efforts should be made to secure like standards, uniform severity of examinations and markings, like

<sup>1</sup> *Loc. cit.*, p. 45.

duration of examinations, like subjects, the same fees, the same rules as to conditions, etc., and the same frequency of meetings in the various states."<sup>1</sup> The medical profession, I think, is expecting to see other groups formed. I know that the great majority of the boards have not the right to enter reciprocity until the laws of the respective states and territories have been changed.

Experience teaches us that it requires great efforts on the part of the medical profession to educate the law-makers and the public, in order to convince them of the usefulness and necessity of changes. Unfortunately, it seems that, for some reason or other, the law-makers are sometimes more influenced by the adversaries of the general good than by the friends of the same. We fully agree with Dr. William W. Potter when he bitterly complains of this fact.

Also another step forward can be made without much delay and trouble. The secretary of the American Academy of Medicine, Dr. McIntire, offers the following commendable suggestion in the *Bulletin of the American Academy of Medicine* (December, 1899): "To hasten the desired result it would be well if the various licensing bodies would take cognizance of the fact that the legal minimum requirements are more severe in some states than in others, even though the board may, at its own volition, keep the standard higher than the minimum requirements specified by law, and where any state has minimum requirements less exacting than those of another state, if it would accept the licenses from another state having the higher legal requirements without reciprocity it would work no harm to its own physicians and, at the same time, show a good will that could not but help, in the course of time, to aid in the general exchange of licenses." I fully agree with the doctor, and I think it is an injustice to make reciprocity dependent upon the condition that the certificates of the weaker states are accepted by the stronger states. It seems to me that the boards should not place a tariff on knowledge and skill. If the weaker divisions are unable to furnish a sufficiently good education, the boards should welcome the licentiates from the stronger divisions. This will work as a stimulus to the weaker divisions, and is justifiable from a moral and humane point of view.

<sup>1</sup> *Rhode Island Monthly Bulletin*, February, 1900, p. 45.

Concerning the relation of the medical profession in general to the National Confederation, in the efforts toward interstate reciprocity, we readily see that their work is interwoven. I may be permitted to call attention to some other points in connection herewith. We know that it is the aim and the object of the National Confederation of State Medical Examining and Licensing Boards to establish the standard of medical education in all its details. We know also of the good work the confederation is doing, and are already convinced that its efforts, in general, are in the right direction. Therefore, it appears to me that the medical profession can heartily indorse the work of the confederation and pledge their support in pursuing the same.

The cooperation of the medical profession at large is shown, and can still more be shown in the following ways, which are familiar to you : In the first place, it is advisable that the medical profession constantly keep in touch with the work and with the intentions of the confederation. In this way the profession will be aware of the progress of the work. I may suggest, in this place, that a journal, perhaps a bimonthly journal, be edited by the confederation in cooperation with the profession at large. It might treat all subjects in connection with interstate reciprocity and higher medical education. The profession could thus become more thoroughly acquainted with all the details of the question.

Furthermore, the medical profession can materially assist the boards in helping to establish and to change the laws in the different political divisions. This, I think, can be regarded as the most important assistance on the part of the profession. It appears to me that in this time of unsettled affairs a public-spirited citizen, even if he be a physician, has the duty to do all in his power to instruct and to educate the public concerning these subjects. Can we expect otherwise to accomplish anything, and who else could do this work if the medical profession will not do it? I cannot believe that law-makers have not the intention to work for the good of the people. If they sometimes are more inclined to follow the advice of the enemies of the welfare of the community, this fact certainly can be explained, in most cases if not in all, by the lack of understanding. I think

that the medical profession itself is to blame for this to a great extent. The medical profession should furnish to the law-makers the necessary knowledge. We have a powerful profession in the United States, and if all members, or the great majority of the same, would be a little more aware of their duties as citizens and use their influence, uniting their efforts towards an improvement, there would be a speedy change. It has recently been seen in Michigan what the medical profession can do. There is no doubt that the physicians under proper guidance have a great influence upon public opinion, and nothing, it seems to me, has greater weight upon the law-makers than the latter. Individually and collectively the medical profession should stand by the confederation in this respect.

The *Journal of the American Medical Association* (May 12, 1900), speaking of the Ohio medical law, says (on page 1205): "The passage of this amended law is full of fruition of the dreams of many years of the leading Ohio members of the profession, and it required the most assiduous and most self-sacrificing labor on the part of the legislative committee of the state medical society, assisted by committees of the local societies. The result, however, clearly demonstrates that when the medical profession shows itself to be determined in its requests to the politicians it can overcome all opposition."

Also another important factor should be considered. We know that the public opinion is largely influenced by the daily press. I think it is commendable to interest the daily press and to furnish the individual editors with material. They will draw the proper conclusions themselves. It affords me great satisfaction to state that the people of Michigan are greatly indebted to the daily press in our state for their new law. I am especially familiar with the assistance of the press in Detroit. With great interest the press watched the work of the better part of the profession. After becoming convinced of the necessity of changes, it worked for them with unceasing efforts, and could see its work crowned with success. Independent of one another in their ways, combined, however, by the general principles of humanity, the press and the profession in Michigan have worked together for the benefit of all, and I sincerely hope that both will continue

to do so in the future. The greater part of the work is still before us (I may mention that at that time there did not exist a state board in Michigan; it has been created since then by united efforts). Should the lay press in all sections of the United States follow the example set by the papers in Detroit, conditions all over the country would improve more quickly.

The cooperation of the medical profession with the boards, to their mutual benefit, can also be shown in a way which suggests itself to me through a communication by Dr. John S. Lewis, president of the Dubuque Medical Society. Dr Lewis says, partly quoting from another source :

"State boards, from the manner of their appointments, are transient not only as to their constitution but as to their character. They are often creatures of a political system, with which barter and sale, and compromises, and pledges have had to do, and they owe debts; the result is that some of them will be efficient and some will not, and that the element of stability in their judgments will be lacking. State pride of a very poor quality will influence a certain order of minds to favor the product of their own state institutions, and it is not inconceivable that even worse motives may actuate them. Besides this, who is going to judge of the standing of the various state boards and assign them to their proper places in the six classes you propose?"

I may answer that we should consider that we are obliged to start the work with our present material. The state boards will improve, no doubt, in the same degree as the profession in general. Both will cooperate with each other for their mutual improvement. Concerning the six groups and the assigning of the various boards to their places I should like to say that the formation of groups should not be based on the quality of the boards so much as on the sufficiency of the laws. There exists little doubt in my mind that the members of the various groups will exercise a sharp control among themselves.

There is still another way in which the individual physician can help to purify the medical profession and at the same time help the cause under consideration; I am thinking of the duty of a physician to withdraw his support from advertising medical



journals. It has been said we have 250 medical journals in the United States. A great many of these journals are certainly not only superfluous but they are absolutely detrimental to a higher medical education and to the profession. Furthermore, the medical profession can work in the behalf of interstate reciprocity and higher medical education by constantly keeping in mind that medical schools, with greater benefit to all, should be public institutions, as I mentioned before. In connection herewith permit me to add part of an editorial of the *Philadelphia Medical Journal* of May 5, 1900, which comments upon the ideas of Dr. Bowditch, of Boston, expressed in his paper, "The Medical School of the Future." The *Journal* says, among other things :

"These suggestions are of the greatest importance for the future of American medicine ; the introduction of the university idea, the laboratory method of instruction, the practical examination to test the student's real fitness for practice, and even the Harvard arrangement of courses in due sequence, are all, apparently, past the experimental stage. Every member of the profession should use his influence to support such schools as are working for these ideals, and the entire profession, through its societies, should organize to support such schools and to use the profession's best influence to crush the inefficient diploma mills which exist in such numbers in almost all parts of our country. Aside from the more ideal motive of striving for that which is best in medical progress, there is the very practical motive which must appeal to every practitioner, that the profession is daily becoming more and more crowded with inefficient men. According to the *Bulletin on Professional Education*, of the University of New York, there is already one doctor to about 600 inhabitants in most sections of the country, and if this increase continues, an honorable living in the medical profession will be almost impossible."

In following out this principle, the cooperation of the medical profession with the confederation will not only serve the purpose mentioned, but will also more or less improve the conditions of which we constantly read; *viz.*, the overcrowding of the medical profession, unethical advertising, the catering to ignorant and incompetent pretenders, the question of the different pathies, the

leaning toward Christian scientists and toward patent medicines, the question of specialism, the position of medical experts, the dark sides of medical journalism which I mentioned before, of lodge practice, the abuse of free dispensaries on the part of the profession and the public, the social standing of the medical profession in general, etc. At present we are moving in a "circulus vitiosus." United efforts of the confederation and of the medical profession should create, instead of it, a "circulus nobilis."

That a greater part of the medical profession all over the United States understands its position is clearly shown by the great interest which the medical press, medical societies, and individual physicians take in the work aiming at interstate reciprocity. Also the laity is beginning to take interest in the question. In order to further the movement, I venture to suggest that an interstate reciprocity committee be appointed by the National Confederation of State Medical Examining and Licensing Boards, which may keep in touch with all other interstate reciprocity committees which may be appointed by other bodies, and also that this or a separate committee may be authorized to publish an *Interstate Reciprocity Journal* perhaps in connection with the medical profession at large—if it sees fit to do so.

In conclusion, permit me to say that the movement is important also for another reason. It seems to me that the next century will witness the greatest progress in the history of mankind in regard to hygienic measures. It perhaps will be called the "hygienic century." A hundred years hence the then living generation will be entitled to name it so, if only the facts discovered in this century will have more generally been used for the advancement and happiness of the human race. We have reason to believe that this will be done. With unusual activity all civilized nations are taking part in the fight against the ravages of disease, *e. g.*, tuberculosis. It is the duty of the National Confederation of State Medical Examining and Licensing Boards to provide for a well-prepared medical profession which will be leading in the march of progress, and it is the desire of the medical profession of to-day to do all in their power to help the confederation to this end. May every single member of the profession contribute his share.

Even a superficial study of the question will convince every citizen of the United States, be he a physician or not, that the establishment of interstate reciprocity for the license to practise medicine is in the interest of all.

#### DISCUSSION.

Dr. J. W. Wright, of Bridgeport, Conn. :

I have attended the meetings of this confederation for several years, and the question under discussion has changed in my own mind during that time. I think, however, it may be desirable to have reciprocity, and I do not think it impossible to accomplish it in this confederation. We have seen it to-day in the discussion of this morning. Such a variety of opinions have been advanced regarding the manner in which it should be accomplished; such a diversity of opinion regarding the laws of each state; such a difference of opinion among the medical boards as to the standard of requirements, that it seems as if it were impossible for years to come to attain reciprocity in the states. I was so fairly convinced of this that last year I conceived the idea of forming a confederation in the New England States to see whether or not we might not be able to accomplish more than we could in the National Confederation. The Connecticut Board called upon the different members of the New England Boards to meet together in Boston, and we met there in February last. At this meeting we discussed the subject of reciprocity, and came nearer arriving at conclusions than you have at the present time. At least, we made a small beginning, but even in the New England States the boards are constituted so differently, that it will be impossible for some time to come to reach conclusions as to reciprocity. In the meantime, the president of the Connecticut Medical Society, Dr. Rodman, suggested a scheme which tended in the same direction. It was that those members of the profession who had passed the United States Army and Navy Boards be exempted from the laws respecting examination for license to practise medicine, and he recommended this before the last meeting of the Connecticut Medical Society. Unfortunately, I was not present, and therefore I do not know what action was taken upon that part of his message, but I think it looks a little more towards a national board with regulations for a uniform standard. If a man is able to pass the army and navy regulations, whose standard is much higher than any medical examining board that I know of, it seems as if he is qualified to practise medicine, not only in the army and navy boards, but also in any state in the Union. And if the laws were so regulated in every state that one who passes that board would be able to practise medicine, then they will become a national board practically which will be a good thing for us.

Dr. Gardner T. Swarts, of Providence, Rhode Island:

While I agree with the gentleman who has just spoken (Dr. Wright), in regard to the impracticability at the present time of obtaining reciprocity

between different states, yet we must admit it would be a desirable thing to get, even though it may take ten or twenty years to obtain it, and it is the duty of this confederation to start a movement of this kind. We can at least draft and adopt resolutions urging the establishment of reciprocity between the different states, and state the conditions which we would consider as reciprocal, and which are desirable standards that shall be maintained, and let each state live up to those standards. It has already been possible to establish reciprocity between two or three states apparently, and I see no reason why it should not be effected between other states. Let us try to agree on something, as, for instance, a resolution or something we can work up with, and which the confederation can adopt.

Dr. Henry Beates, Jr., of Philadelphia, Pennsylvania:

This question of interstate reciprocity seems to me to be so complex, that to approach it from an intelligent standpoint requires, first, a clear and definite notion of what we are aiming at. Perhaps it can be best approached by asking why it is we exist as a body. We have no constitutional right to exist. We have no potential energy that is recognized by law. We are a conventional body. We simply have agreed between ourselves to form a confederation. What is our object? What are our powers, and what are the conditions upon which those powers depend? Every one of us is personally interested in securing, what? Simply a doctor, in the conventional acceptance of the term. We have a very desirable proposition before us—interstate reciprocity. For what reason? Because the doctor is fenced in, and of what does the fence consist? A conventional standard of something which keeps him within certain limits, but he has the freedom to roam the country over. He knows that there are conventional barriers over which it is impossible to pass, and hence arises the question, what is the first thing we find? Differences of standard. Upon what basis and by whom is the standard determined, and in what way does conventionalism repose the determining powers that are operative in making a doctor? In the first place, attention should be directed toward the character of the medical college. What is the study of medicine? Let me say, that in Pennsylvania the law is an elastic thing and is stretched in every way to suit the interests involved. The Pennsylvania law says that four years of medical study are necessary, three of which must be spent in regular, incorporated medical colleges. Last year was my first year in serving on the medical council, a body under the Pennsylvania law, which determines the eligibility of candidates for the right to an examination. The first credentials I analyzed consisted of a diploma, from a regular, incorporated, and greatly respected medical college, which set forth that the candidate had studied medicine for three years, the fourth year, which was conveniently called the first year, consisted in his being a graduate of pharmacy. I thereupon said that this man was not eligible. The study of pharmacy is not the study of medicine, and then came the cloven foot. Because that man had studied pharmaceutical chemistry and pharmaceutical botany, he was considered to have covered

the work of the first year in the medical curriculum, and this college had assumed the right to circumvent the law and admit him in the second year and foist him on this or that community as a third- or fourth-year student of medicine. What educated physician for one moment would claim that a busy student in the second year could in any way make up the work of the first year? He has not time to do the work of the second year properly.

In Pennsylvania the colleges that were so interested in the number of students have perverted the action of the medical council and claimed that the interpretation of the law by the medical council discriminated in favor of college-bred men. A more absurd and ridiculous statement could not have been made. I go into these details to show the many forces that are brought to bear on our work and which have a more or less direct relationship in determining the proper solution of interstate reciprocity.

We must look to the every-day practitioner, who comes in contact with the educated citizen, to help us in securing reciprocity. When the mind of the public is made sensitive to the truth, we can ask for and will receive as much cooperation as we can from the rank and file of the profession of Pennsylvania and of New York, or of any other state that is doing good, honest work. That is what this confederation wants to do—to tell the profession the truth, and until the profession imparts the truth to the public, we will spend another decade in talking about it as we have been doing to-day.

Dr. William A. Spurgeon, of Muncie, Indiana :

I have listened to the paper with a good deal of interest. It occurred to me that there were some recommendations in it although I could not determine whether the author intended to endorse them fully or not. However, these recommendations demand our careful consideration. In the first place, I believe we ought to go a little slow when we assume the attitude of recommending to the medical profession or anybody else the adoption in this country of a paternalism which would not be sustained by the great American free men of this country. I do not believe that it would be wise for us to discard the recommendation that states and governments should become the patrons and the support of medical institutions. I do not believe that it is the legitimate function of the state to go into that degree of paternalism that calls upon the taxpayer and common people to support medical colleges. If they do that, then they may establish institutions for the free education of the lawyer and of the preacher. I do not believe we had better advocate such things as that. I do not know whether the author advocates it or not, but it is referred to, and we might profitably consider some of these points to good advantage. We came here to do a good deal of work, and we have considerable business on hand to transact. Right here I wish to enter my protest against a one day's session. We cannot do in this confederation what we ought to do, in one day. If we can make ourselves the medium or instrumentality by which we may focus and concentrate the professional opinion of this country; if we can gather up the ideas, the teachings, the doctrines, the opinions and notions of the great rank and file of the medical

profession, and utilize them with benefit in our legislatures and secure thereby uniform medical legislation, we will have accomplished one of the great things that we so much desire. It strikes me that we should strive in some way to secure in this country uniform medical legislation, uniformity of the medical practice acts of the various states. I believe we can do this, although it will take considerable time to accomplish it. We must not expect for a moment to think that we are going to reach perfection in a comparatively short time, because we cannot do it. It is simply out of the question. It will take more than three or four years to accomplish it, even if we reach anything like perfection. But I do believe it is possible to reach a uniform standard for all practical purposes. Perhaps, by reason of certain environments that are medical and legal, we may not be able to reach the same degree of perfection in the various states. We may not get the same law exactly, but we may incorporate into the laws of the various states features which will render them as nearly uniform as possible in their benign and beneficent influences to the public. If we can reach a conclusion as to what steps to take, and what course to pursue in order to reach this uniformity, then we shall have accomplished much good. In this connection I have a motion to make to this effect:

"With a view to securing uniform medical legislation, I move that a committee of five be appointed to report to the confederation the basic features of a proposed medical practice act, to be considered by the confederation, which, when discussed, and, if need be, amended, be adopted as a basis of recommendation to the various boards of the country, and through these boards and the profession to the legislatures."

Dr. Egan:

I move the adoption of the resolution. Seconded.

Dr. Suiter:

I move, as an amendment, that this committee, when appointed, be made a standing committee, to be known as the "Committee on Licensure, Interstate Reciprocity, and Uniform Legislation," and that it remain as such until it is discharged by the confederation.

The amendment was seconded and accepted.

Dr. William Warren Potter, of Buffalo, New York:

Before the motion as amended is put, it might be well to discuss it for a moment. I had not expected to participate in this discussion, because the views I hold on this general subject have already been very thoroughly ventilated in my addresses as president of the confederation, and in the discussions in which I have participated. But there are some reasons that lead me to think possibly that this confederation will tolerate a word or two more from me. I have discovered, Mr. President, that there is good reason for this organization, one perhaps that was not anticipated at the outset. In our early meetings the most that we hoped to do was to confer with each other as to methods of examination. We were members of examining boards; we

grouped ourselves together in an involuntary manner almost, to organize a voluntary association. The moment we had come to confer with each other, questions arose one by one of great importance, either immediately bearing on the question of examinations themselves, or collateral questions, such as have been taken up, discussed, considered, and partially disposed of. Let me say that our status is an interesting one to my mind. We are almost the only medical body that meets in this city during this week, the members of which bear the commissions of the states from which we come. In that way we meet, if not authoritatively, at least in a quasi-authoritative manner. We meet to confer with each other, to discuss questions among ourselves, and to present points from the several states' from which we come that are practical questions, bearing on medical education, medical examinations, and interstate reciprocity. Interstate reciprocity, to my mind, is almost the last question with which we should deal. It is a question of finality, growing out of the other several underlying questions. In the course of these conferences, sir, I am happy to say that I have discovered the great respect that we have for each other. I have discovered especially the respect which the gentleman from Ohio, the gentleman from Indiana, and the gentlemen from other states bear towards Kentucky, and I have no doubt Kentucky reciprocates that respect. It seems to me, that is great progress. We are becoming more solid. In our early meetings, while there may have been more men in the assemblage, there was less conversation and discussion. There was a timidity; there was a something or other that indicated the men were not ready to speak. Here to-day, from early morning until noon, men have not been slow to advance their views. This is the outgrowth of this organization. Our duty, then, sir, is advisory, and it contemplates doing much that has been presented in the resolution offered by my friend from Indiana. But I would like, before a vote is taken on this resolution, to ask him if he does not think it a little unwise to pitch into the arena the question of the legislative part of his motion. It seems to me, that there is much to be done before we come to that. We must analyze the question of the relation of the colleges which has been brought out by my friend from Pennsylvania so admirably. Reciprocity will come when we have uniformity of standards of education. I mean uniformity as to time, as to methods, especially laboratory methods, etc., because why should there be any difference in teaching chemistry, physiology, or bacteriology? Several of these branches could be made uniform to-day. We might possibly differ as to the questions of the application of therapeutics or of medicines to disease, but that is of much less consequence. The other questions are of very great importance. Then, to revert to uniformity as to time of study (collegiate study, I mean), uniformity as to methods of examination for degrees, and approximate uniformity with reference to state examinations, as dealt out by the members of this confederation and their colleagues who are not here. Let me say in this connection that our friends in the college association are struggling with this question, and it is a very great problem they have to deal with in regard to preliminary uniformity and time uniformity, connected

with the educational department. I have no doubt that as we go on we will grow nearer and nearer to the organization than we have in the past. We can gain something by an interchange of courtesies between each other. The members of the college association can attend our meetings and we can attend their meetings, and I quite agree with Dr. Spurgeon that one day is not sufficient to discuss these questions and deal with them properly. It is almost impossible to adjust time, so that this confederation can attract the largest number without entrenching upon other meetings. I think in the near future we will be obliged to give more than one day to this work. I am in favor of appointing a committee of this confederation which shall deal with the question of reciprocity, and to whom all resolutions, all papers, and all information on the subject shall be referred, and for that committee to digest it, to put themselves in communication and relationship with other interested organizations and to bring before us at our meeting something tangible, something we can intelligently discuss. The great mass of doctors know very little about this question, but they are in favor of it. As it is, a doctor cannot go from one state to another as he chooses to practise medicine. Physicians forget that it would be an injustice to one state whose standards are a certain kind, compelling young men in that state to live up to the requirements and standards before licensing them. These are rights of citizenship, consequently it requires careful, conservative, slow thought to deal with this very large, very important question. It is a question that the people are exceedingly jealous about. The journals and magazines are taking it up, and discussing it very superficially and from a top-lofty eminence, knowing very well the underlying difficulties and underlying laws. The law must stand first and foremost in all the states. We must respect it. We must respect the rights of citizenship everywhere, and yet we must do justice to our profession which we all love, namely, build it up to that reasonable degree of respectability by which the licenses of one state shall be respected by all other states and be respected abroad. That is the ideal to reach. It requires in my judgment the application of that fine, beautiful, timely, old maxim of the Ancients, "*Festina lente.*"

Dr. James A. Egan, Springfield, Illinois:

I moved the adoption of the resolution offered by the gentleman from Indiana for the purpose of bringing it before the confederation, but with a very faint hope that any good could result from it. After an experience of several years in legislative matters, pertaining particularly to the practice of medicine, I have come to the conclusion that it is not only impracticable, but absolutely impossible, to obtain uniform legislation in the states. I believe that the matter of state reciprocity can be best settled by the boards of the different states requiring an examination of all candidates, which states alone are concerned in this question. The laws in the different states in which certificates are granted upon the presentation of diplomas from recognized medical colleges are practically the same, and a physician receiving a license in Kentucky on his diploma, ought to be able to secure the same privilege in Rhode Island and Indiana by the same means.



The law of Illinois provides that the applicant, who must be a graduate of a medical college in good standing, as may be determined by the board, shall pass an examination in those general subjects and topics, a knowledge of which is commonly and generally required by the majority of medical colleges in the United States. Under the terms of this law the board has adopted a resolution, a copy of which I have and will read you:

*Resolution adopted by the Illinois State Board of Health, October 10, 1899.*

*Resolved*, That applicants for a state certificate to practise medicine and surgery in the state of Illinois, who have been examined and licensed by other state examining boards maintaining standards not lower than those provided for in the Act to "Regulate the Practice of Medicine in the State of Illinois," in force July 1, 1899, shall be granted certificates without further examination on payment of the fees required by the Act, providing that the applicant, who must be a graduate of a medical college in good standing with this board, shall present with his license, an affidavit from the president or secretary of the state examining board, showing that the requirements of said examining board at the time of his examination were equal to those exacted by this board under the present law, and providing further, that the said state examining board will grant licenses without examination to applicants holding certificates issued by the Illinois State Board of Health under the Act now in force.<sup>1</sup>

In accordance with this resolution, the Illinois State Board of Health will recognize certificates issued after examination by the boards of registration or examination of the following states, providing, the applicant is a graduate of a medical college in good standing with the Illinois board:

Alabama, Arizona, Connecticut, Delaware, District of Columbia, Florida, Georgia, Idaho, Louisiana, Maine, Maryland, Minnesota, Mississippi, Montana, New York, New Jersey, North Carolina, North Dakota, Ohio (after July 1, 1900), Oregon, Pennsylvania, South Carolina, Virginia, and West Virginia—and providing of course that the said boards recognize certificates issued by the Illinois State Board of Health under the provisions of the present law.

It may be asked, has not the Illinois State Board of Health exceeded its powers in recognizing such certificates? Technically, yes, perhaps, but not equitably so. It is a well-known fact that the courts are prone to look favorably upon the construction of a law in favor of the people, and surely the board which I have the honor to represent is so construing the law under

<sup>1</sup> Under the provisions of the Act to "Regulate the Practice of Medicine in the State of Illinois" in force July 1, 1899, an applicant for a certificate to practise medicine and surgery in the state must present evidence of being a graduate of a medical college in good standing as may be determined by the board, and must pass an examination in those general subjects and topics, a knowledge of which is commonly and generally required of candidates for the degree of doctor of medicine by reputable medical colleges in the United States.

No medical colleges will be considered in good standing after January 1, 1900 which do not require of all graduates receiving diplomas after that date, as a condition of graduation, an attendance upon four full courses of lectures in four separate years.

J. A. E.

which it operates. The question arises, cannot the other boards a similar resolutions?

A board frequently appoints a committee to examine candidates for license. Why in reason cannot this committee at times consist of the members of another state board of health, registration, or examination?

Dr. E. B. Harvey, of Boston, Massachusetts:

I have listened with a good deal of pleasure to the remarks that have been made by the different speakers, yet I am not satisfied with the discussion on reciprocity. In the first place, I have no particular objection to the motion or resolution offered by the gentleman from Indiana (Dr. Spurgeon), but if he is conversant with the methods of legislative bodies in the different commonwealths of this great country, and if he thinks that he or any committee of five men appointed by this confederation can devise any method under the sun whereby he can secure uniformity of legislation in these different commonwealths, he will accomplish what no man can hope to accomplish. There is no uniformity of legislation on any subject whatever touching the welfare of the people of this country. There is no uniformity of legislation among the states or among the commonwealths of this country. Every commonwealth has a legislative body of its own, and it will not accept the ideas of any other state or of any other commonwealth. The commonwealth of Indiana will not allow Massachusetts to set its standard for any purpose whatever, especially touching the educational interests of the commonwealth of Indiana; neither will Rhode Island ask Massachusetts to set its standard on the subject of medical education or any other subject. It has a legislature of its own, and it will enact laws according to its own wishes, and not according to the laws of other states, or the neighboring commonwealth of Massachusetts.

Mr. President, I came here to-day thinking that possibly I might carry back to my own commonwealth and registration board some ideas, some new thoughts on this matter of reciprocity, and I have been sitting here from early morning until this hour and have not heard a single word from any man here to-day why reciprocity is desirable, or for what purpose do we want reciprocity. What reasons can you give for it? I pray, give me your reasons, so that I can carry them back to my board and to my commonwealth. I recognize, Mr. Chairman, the fact that medical legislation has for its object primarily and secondarily the welfare of the people of these commonwealths. It is that the people may enjoy a larger degree of protection along the line of health and life. Tell me, if you will, wherein reciprocity secures for the people in the different commonwealths a higher degree of protection than it receives to-day under the work of the individual boards in the different states. Tell me how the people will be better served than they are now being served, and then perhaps I will yield to you my ideas in regard to reciprocity.

Ohio believes it has the best law in this country on this subject. Perhaps it has. I have not read it. But I doubt if the people of Massachusetts would

consent to that idea. I doubt whether the condition of things in Massachusetts is so similar to the conditions in Ohio that the legislature of Massachusetts could be induced to pass a law like the law that has been enacted in Ohio. I undertake to say that there can be no such a thing as uniformity of legislation touching medical matters. I say this for the reason that there is no such uniformity on any other subject under the shining stars. Mr. President, I do not believe in reciprocity. I am free to say, that Massachusetts will never allow any commonwealth in this country to set its standards on educational matters. It has not reciprocity with any other state in this whole country, nor has any of your states any reciprocity with it. On what matters, may I ask, have you reciprocity in Ohio or Indiana? Certainly not in matters touching the educational interests of your people. Columbus will not allow persons from other states to teach in its public schools. You examine your own men, for your own purpose, in the different cities and different municipalities throughout the commonwealth. Every state must fix its own standard and conduct its own internal affairs. It will not listen to the legislatures of other states; it will not enact similar laws in reference to this matter.

Dr. Augustus Korndoerfer, of Philadelphia, Pennsylvania:

The last speaker said he cannot see any reason for reciprocity. I do not know that he is much older than I am, or so much younger, yet, at the same time, I cannot understand why a physician of to-day can have grown so far past his early settlement that he can see no earthly reason for reciprocity. There is probably not more than one young man out of ten who graduates to-day who has fully fixed in his mind the location where he will settle permanently. He has an indefinite idea about it. He feels an uncertainty as regards that settlement, which uncertainty you know is wrought out to his great dissatisfaction by proving a failure in his first settlement. I know of a number of practitioners who have found it necessary, by reason of an injudicious settlement, to make at least two or three settlements before they finally became permanently located in the practice of medicine. These practitioners were not ignoramuses. One of them was the smartest young man I knew. He failed absolutely in Philadelphia, but after moving to Indiana he became a very successful practitioner. If a young man had to go from state to state and pay for passing an examination, lose a week or ten days' time at the examination, and be in suspense for a month after that before the result of the examination can be determined, he is put under needless expense, an unnecessary loss of time, and it is a serious injury to him frequently. We ought to have reciprocity to start with. I think it is absolutely essential in order to be just to the young men. Some of the older men find it would be desirable, and I have several acquaintances who have found it necessary to remove from one state to another on account of ill-health. It proves very pleasant to be recognized by the fellow practitioners in other states as being the equal of themselves, and having places open to them under the action of reciprocity.

I approve of the motion made by Dr. Spurgeon from the standpoint of education. We are representatives of the educational movement. We must educate the people; we must cultivate the minds of the medical men throughout the United States in regard to what law would be the best in the different states. It is all nonsense to say that we cannot get practically the same laws in the different states. While we in Pennsylvania have a law which is a little different from that of New York, we are rapidly approaching the New York law. New York is a little ahead of us. It went further than we did. We are trying to improve our law, and we hope before long to get as good a law as they have in New York. When a committee from this body collects the best ideas embodied in the different state laws, and submits a form of law to this body that can be discussed and accepted by it, what is the result? Every member of this body who feels satisfied with a good law goes to his own home and advocates that law. He goes into his county society and advocates it; he goes to his state society and advocates it, and in the course of a few years' time we have perhaps two thousand or more members in our national societies advocating such a law, recommending it for passage by the different legislatures. If we can mold the views and opinions and actions of the great profession of medicine in this country, it is our duty to do it. That is what we are here for.

Dr. H. B. Dale, of Oshkosh, Wisconsin :

I have hesitated to participate in this discussion. I am a stranger to the members of the confederation, owing to the fact that I hail from the State of Wisconsin, a weak sister. I remember very well that three or four years ago we had a law in Wisconsin under which almost anybody could practise medicine there, but we are gradually getting to the front. We hope to do better in the future. This discussion emphasizes a fact which I have considered and believed all along, namely, that the secret of trouble lies in our medical colleges. The gentleman of the Pennsylvania board has emphasized that fact, and it was likewise emphasized in the paper that has been read. A weak point, if I may call it such, in all medical legislation upon the statute books to-day lies in the fact that we are getting hold of the wrong end; we are undertaking to purify the river at its mouth instead of getting at its source. I cannot at this time suggest the best means of how this can be remedied. It can only be done in one way, and that is by national or federal enactment of some kind which will establish a uniform standard and compel all colleges in the country to come up to it. If this can be done, and I think it will be some time, the necessity of examining boards would be done away with. At the same time, I wish to put myself on record as favoring the motion made by Dr. Spurgeon, because I believe it is a step in the right direction. This committee after digesting all medical laws, proposed in this matter, can come to a conclusion which will be of the utmost value to the profession at large, the laity, and to our legislatures, and while it may be a long step in the direction of national enactment, some day it may accomplish the purpose hereafter.

Dr. William A. Spurgeon, of Muncie, Indiana :

I hope that my motion and the import of it are understood. It does not for a moment contemplate a rapid approach to perfection, but a step in the right direction. I want to say in reply to the gentleman from Massachusetts, that law is preeminently for the people. But while that is true, the medical profession are a part of the people, and it does not contemplate an infliction upon the medical profession for the benefit of the people, nor anything that is unjust or intolerant. We have rights in this country, and there is no reason why we shall drown them or stifle them simply because the law is intended for the people. I want to say further, that there are good and legitimate reasons why we should have reciprocal recognition of certificates of qualification and licenses issued to applicants by the various boards in this country. It may not accomplish all that we hope for, but it will be a source of unanimity, and it will result in good.

Dr. J. N. McCormack, of Bowling Green, Kentucky :

I trust you will permit your president to say a few words in regard to this subject of interstate reciprocity. For a long time I took the position that has been outlined by Dr. Harvey in this discussion, and I could not see any reason for reciprocity. But as member after member has arisen and has advocated its importance, it begins to dawn on me that many of you are anxious for it. It occurs to me that New York, Pennsylvania, Illinois, and many other states are anxious for interstate reciprocity ; they are anxious to get us to adopt their system of reciprocity, so that we can let some of them out. I am a little suspicious about it. I do not believe that there is much danger in it, even though you might adopt a uniform law and recommend it. But I assure you, gentlemen, I shall never tell my legislature anything about it. I shall never let them know that you have suggested it even, because in Kentucky we have a good law, and we do not want it disturbed. We are satisfied with it. The reason I do not vigorously oppose this motion is because I think it will not do any harm. Very few resolutions will do any harm. If it is satisfactory to most of you to have reciprocity laws enacted, I have not much objection to them, so far as Kentucky is concerned because it is not going to do us any harm. However, speaking seriously, there are many objections to what you propose. I do not think the regular, reputable members of the medical profession in Kentucky, who are established there, could be induced to live and practise in either Indiana or Ohio.

Away back of all this discussion is the point suggested by the gentleman from Wisconsin, namely, the question of medical education. The more time we can devote to that fundamental question, and the less to the frills and furbelows like medical reciprocity, the better, and the sooner we will have arrived at better results. I am not in sympathy with the idea of slurring medical colleges. I am not connected with one, I am glad to say. I have no aspirations in that direction, but I do sympathize with them in many of the difficulties under which they are laboring. I have been in close touch with the medical schools of my own state, and but for their constant assistance and support our present position in Kentucky would have been utterl

untenable. During the twenty years I have been connected with this work, in advocating and trying to secure reformed legislation before the General Assembly, my hands have been unceasingly upheld by the medical schools of my state. They have been laboring under great disadvantages and difficulties in regard to preliminary education in the South, so much so that it is difficult for you people in the North to appreciate with your great wealth. This difficulty has arisen as the result, in a great measure, of our great civil conflict, during which time you were getting rich while we were getting poor. Your schools were being built up, while ours were being torn down. It is a difficult matter, therefore, for you to appreciate the obstacles with which our schools have had to contend. In this connection I desire to give an example. I have had young men come before the board very often who would appeal to my sympathy. They were young men who had in them good material, and in this connection I want to speak of an instance given by Dr. Hugh M. Taylor, of the Virginia board, of a young man who came before them shortly after the board was organized. He was pretty well advanced in years. His father had been killed in the war. He was left with his mother and sisters to support upon a poor farm, which at one time had been a great plantation, and on which now there was neither vestige of a house or improvements of any kind. He went there among the ruins and built some temporary structures and supported his mother and sisters. After a while he accumulated some means, and in the meantime went to Baltimore to study medicine. He took what was then required, two courses of lectures, graduated, and came down to pass his examination before the Virginia Board. He failed in one of the branches, but passed in everything else. He was a man of fine, natural ability. His people were good people, and he was very much superior to the average doctor in Virginia, and these men knew it. When he was notified that he had failed, he asked to be allowed to appear before the board and make a statement. They gave him that privilege. He stated his case to them, and said that he did not know what he was to do because he was at the end of his road. He had only graduated a few days before his mother had sold the last horse to get the money with which to pay his graduation and college fees, and at the end of his story the board sent him out, held a consultation, and made up for him out of their own purses \$250, with which to buy him a horse and start him in the practice of medicine. This is not an unusual instance. It is a difficult matter for you people with your great wealth and your great educational advantages to realize the disadvantages under which our schools have labored. We have gone on and at last have shut some of the Southern colleges out of Kentucky. We have raised our standard year after year.

Probably some of the older members of the confederation will remember that two or three years ago I offered a resolution which embodied the points of the motion that has been made. It was adopted but nothing has ever come out of it. This simply shows how harmless it is to pass resolutions. My resolution provided for the appointment of a committee composed of representatives from various sections of the Union, who shall visit the medical colleges of this country during their terms and investigate and report

upon the equipment and methods of these colleges to this official body, because what we say represents something. We can pass no resolution here that is binding, but if we get information and it is published in the records of our boards that a certain school in St. Louis, New Orleans, Indiana, Illinois, or anywhere else, or simply a paper school, that has no existence in fact, is not worthy of the name of a medical college, it settles the matter so far as that school is concerned. But we want accurate information and we have no other way of obtaining it. I think the plan I suggested was that we appoint a committee of twelve, with three in each geographical division of the Union, and that my state was willing to pay its share of the expenses incurred in carrying on the investigation, and let the members of the committee go and see for themselves what the colleges are doing.

Dr. William Warren Potter, of Buffalo, New York :

In explanation of the resolution offered by Dr. McCormack three years ago, I wish to say that he himself was not present. The resolution was sent up by one of his coadjutors or lieutenants, and the appointment of the committee was deferred out of respect to Dr. McCormack. He might be made chairman of such a committee now.

Dr. J. P. Creveling, of New York :

To my mind the gentleman from Indiana has produced the only forcible argument in favor of interstate reciprocity. It is well to be free and do as you please, and this is inherent in every American citizen. But further than that, I see very little force in anything that has been said regarding reciprocity. I am very much opposed to the merits of the resolution itself. But the mover of the resolution says it will be a good thing for them in Indiana, and if it should prove a good thing for that state, I have no particular objection to it. The gentleman from Massachusetts said a good many things that cannot be cried down. It is only natural that every state should govern its own internal affairs. The constitution of every state is based upon that principle, and that is the status of every state constitution to-day. I do not believe that we have any right to interfere with the operation of Massachusetts. I do not believe we can frame a system of education that will meet the approval of the far West at the present time. The interests, the resources, etc., of the two sections are so great, so different, that I do not believe we can harmonize them at the present time. Therefore, Mr. President, I do not believe that it is practical to have a national supervisor or an executive body that will attempt to regulate these matters in reference to preliminary and medical education.

Dr. Henry Beates, Jr., of Philadelphia, Pennsylvania :

Sufficient has been said to show and to demonstrate that to establish reciprocal relations in detail is impracticable, but to establish reciprocity upon fundamental principles is not only practicable, but it is necessary to the end in view. The resolution submitted by the gentleman from Indiana expressly states that the committee is to inquire into the best methods of coordinating the fundamental principles, and when we have that, reciprocity

is already established, in so far as its functions are operated. When we go into the details we are doing that which is impossible of achievement.

Dr. A. Walter Suiter, of Herkimer, New York :

As a member of the confederation, I am very glad to have had the privilege of being present and of hearing this subject discussed in the manner that it has been. There is no harm in adopting a resolution of this kind. I cannot see any harm in having a standing committee on the general subject of interstate reciprocity, or, if you prefer, you can appoint a committee for the purpose of inquiring into the subject in general, and have that committee a standing one to report upon interstate reciprocity from year to year until something, if possible, is accomplished. I agree with my friend, Dr. Beates, of Philadelphia, that it is absolutely impossible to establish interstate reciprocity in detail. It is entirely out of the question, and as regards the appointment of a federal board for the purpose of conducting examinations and granting licenses, it is impossible on constitutional grounds, and cannot be accomplished. As I have previously said, I can see no possible harm in having a standing committee appointed, the members of which shall inquire into this matter of interstate reciprocity and make a report from time to time, and if they can suggest a method finally, whereby this great question can be settled and acted upon by this confederation, so much the better.

Dr. Charles A. Groves, of East Orange, New Jersey:

In connection with the resolution, I would like to call attention to one point in Dr. Amberg's paper, which, it seems to me, offers some ground upon which we may possibly unite. He mentioned a series of classes into which the states could fall, classes which could endorse one another's licenses until the time came when all states could endorse one another's licenses. I think that matter might well come within the consideration of this committee when it shall have been appointed.

Dr. Amberg (closing the discussion):

In my contentions for the establishment of interstate reciprocity, I have had such arguments as have been advanced by the gentleman from Massachusetts to combat right along. Gentlemen, you would be surprised at the large number of physicians who favor interstate reciprocity. I know it. I have talked with them about it. I know from personal experience that there are at least 2,000 doctors ever ready to back up reciprocity. Admitting that there are 125,000 physicians in the United States, I believe, if this subject is presented clearly to them, the majority of them would favor it.

I shall not consume the further time of the confederation in discussing the best means for securing interstate reciprocity, but I see no reason why any man could be opposed to it, if he clearly and thoroughly understands the matter.

At the conclusion of Dr. Amberg's remarks, the president put the motion of Dr. Surgeon as amended, and it was carried.



WHAT STEPS SHALL BE TAKEN TO ESTABLISH A  
UNIFORM STANDARD OF PRELIMINARY RE-  
QUIREMENTS IN ACCORDANCE WITH THE  
RECOMMENDATIONS CONTAINED IN THE  
REPORT OF THE COMMITTEE ON  
MINIMUM STANDARDS, ADOPTED  
JUNE 5TH, 1899?<sup>1</sup>

By N. R. COLEMAN, M.D., Columbus, Ohio.

*Mr. President and Gentlemen of the Confederation.*—The question submitted for our discussion is: "What steps shall be taken to establish a uniform standard of preliminary requirements, in accordance with the recommendations contained in the report of the Committee on 'Minimum Standards,' adopted June 5th, 1899?"

In opening the discussion on this very important question I would like to take up three considerations, each of which has its distinct bearing. They are:

1. The preliminary requirements for entrance to medical colleges as they exist at the present time.
2. States that already have laws defining what the minimum standard of requirements shall be.
3. States that do not have laws empowering boards to fix a minimum standard.

Upon investigating minimum requirements for the entrance to medical colleges I find that they are manifold. The ones that now exist, and are in force in a large number of the states of the Union, are those adopted by the Association of American Medical Colleges, the Southern Medical College Association, the Intercollegiate Committee of the American Institute of Homeopathy, The National Confederation of Eclectic Medical Colleges, the Physio-Medical Colleges of Illinois, and the Physio-Medical College of Indiana. In addition to these we have requirements almost as many as there are political divisions of the country, as each state seems to have a requirement differing

<sup>1</sup> Read before the National Confederation of State Medical Examining and Licensing Boards, Atlantic City, N. J., June 4, 1900.

from those of the others. It would seem evident to the minds of all connected with state medical examining boards that, with all this diversity of requirements, there is an urgent necessity for a uniform standard to be adopted by the several states. Comparatively little progress can be made until the state boards have settled this very perplexing question, which is the foundation upon which the superstructure must be built. Moreover, the condition which now exists, is a great hardship and injustice to the 150 medical colleges of the United States with their 25,000 students. Colleges and students are constantly kept in a state of unrest and bewilderment by a desire to comply with the requirements of the several states having laws governing the reception of students. Every member of this association is fully aware of the numerous difficulties that arise out of this question at the meetings of their board, and they are forced to reject applicants for examination whom they know have endeavored to comply with *some* law. When an applicant reaches the state where he desires to enter upon the practice of medicine he may find himself confronted with requirements, with which the college from which he graduated did not comply, hence the board must refuse him permission to enter the examination. This condition will exist just so long as we have the numerous requirements relative to the preliminary education. It is sometimes impossible for a college to meet all the requirements of the several associations and states as they now exist, and it is just as impossible for them to state clearly to the student, when he applies for admission to the college, what the requirements may be in that state in which he desires to enter upon practice. Therefore the student has to go on without definite information to the end of a four years' course, with a possibility of being unable to engage in his chosen profession, notwithstanding the fact that he has expended his effort and money in good faith. I ask you in all candor if it is justice to a student, and does it redound to the best interest of the medical profession? I say absolutely no; and it rests with this body and no other, to correct the defect. The majority of medical colleges are ready and willing, and would gladly accept any standard of requirements, that are within reason, and be freed from the constant irritation and annoyance

which arises from the numerous standards as they now exist. There are doubtless some difficulties to be confronted in establishing a uniform standard; yet they are not insuperable, and should only serve to stimulate us to a more determined and united action; for you all well know that individual action amounts to but little, but great results can be accomplished by a combined effort.

I am more firmly convinced now than I was at the time the report on minimum standards was adopted, that it will meet the requirements as at present demanded. It contains nothing unreasonable or really objectionable, and nothing which will work either a hardship to the student or the medical college. Ohio has manifested its approval of the report by enacting it into law, and the Ohio State Board of Medical Registration and Examination has adopted the part of the report, providing for the examination of those who do not possess the credentials, set forth in the report, as sufficient evidence of a preliminary education. We feel confident that such action will bring order out of chaos, and relieve both student and college of numerous annoyances and hardships.

With this preliminary statement, I shall now take up the division of the question relating to states that already have laws defining the preliminary education necessary to enter upon the study of medicine. On examining the laws of the several states we find that New York has a law which establishes the high school course, after a completed eight years' elementary course, as a minimum standard. Ohio has adopted the four-year high school course, or its equivalent in other educational institutions which are incorporated by law, some of them having a course of study superior to that of the high school. The standard in these two states approximates very closely to that required in most parts of Europe. New Hampshire also requires medical students to be graduates of registered academies or high schools or certify to an equivalent course of study. Several other states, as Delaware, New Jersey, Maryland, Pennsylvania, and Washington have a standard comprising a common school education. With very slight changes in the laws of the states just enumerated they could be brought up to the four years' high

school course. Other states again require a "fair preliminary" education, which virtually amounts to little, unless the board can so construe the law as to cover a more extended course than that embodied in the primary schools. The rules of the State of Vermont, as I understand them, require a high school course, but the law does not specifically state it. Illinois and Iowa require only one year of high school work. In both of these states it would seem that with very little effort they could advance their standard to the four years' course. New Mexico now demands a high school certificate or its equivalent, and with a clearer definition the law could establish our requirement beyond question. The law in Virginia is very indefinite, and virtually leaves it with the board to determine what the standard shall be, as it simply states "evidence of a preliminary education." If the board of Virginia can construe that evidence to mean an equivalent to a high school education, it seems to me that it would be a very easy task to establish the standard adopted by the confederation last year. Let these states that now have the ability, at once explicitly adopt the standard of this confederation, and by the time that eight or ten states have lined up in uniform requirements, the medical colleges will be necessitated to adopt the same standard, for students will select an institution whose diploma will confer the privilege of choice in location for practice.

In a large number of the remaining political divisions, there is either no law to determine the minimum standard, no rules adopted by the board, or else they are so indefinite as to be of little value. It would seem from what I have just stated, that the minimum standard of entrance requirement has not kept pace with the technical education in medical colleges. It is evident that the breadth and stability of the foundations have been woefully neglected, while the dimensions of the superstructure of technical education have been greatly extended. But a few years ago the medical colleges required only two years of study, and two courses of lectures of twelve weeks each. In a brief period of time, this was lengthened to three years, with three full courses of lectures of six months each. Then it was again lengthened to four years, and during all this time there

was but little advance made in the preliminary education demanded. I verily believe that there are more students, defective in their preliminary education, entering the medical colleges of to-day, than there were ten or twelve years ago, when medical students were required to take out tuition with a well qualified practitioner, and spend one year reading in the office, before he was allowed to attend lectures. It is probable that many a student, when found defective, was discouraged by his preceptor and never appeared before the faculty of a medical college. If this be true, is it not a serious reflection? It is well to study this question, and see if we are making an absolute advance; that is, educating men who cope with disease better than those who were educated a few years ago. Do not misunderstand me as decrying advanced medical education. What I mean is, do our present methods lead to as careful a selection of material as when the medical man scrutinized the community to choose the kind of man he would have join the ranks of his, the noblest profession among men? Technical acquirements will never supercede good judgment. Much of the difficulty lies in admitting men with defective mental training. It is possible for medical students to enter a college of their own volition, without evidence of any training, or even the recommendation of a good, intelligent physician; or if required to submit to an examination, it is possible that, in fact, it may be only a farce. Until laws are enacted specifically stating what the preliminary education shall be, and such as may be readily enforced by the various boards, the serious evils will continue to exist.

The next point to be considered is in regard to states that do not have laws empowering the state examining boards to fix the minimum standard. This change can only be made by the action of the legislature of each state. The question will at once arise: "Can this be done?" I have no doubt that many of you will say "we have tried it from year to year, but we have failed." That amounts to but little, and should not be sufficient to deter physicians from further insisting that those who represent them, enact laws for the benefit of the commonwealth they represent. It can only be done by a determined and well organized effort; by nominating physicians well qualified for such work, and then

see to it that they are elected. Send them to the general assembly and let them boldly and determinedly demand their rights of that body. Organize the entire profession of the state as you would organize an army, and move in harmony and as a unit. Some say that it is not dignified for a physician to enter politics; but in answer to that I would say that it is not only dignified, but it is his duty. The foundation of the work must be laid in the primary elections. The profession should secure a fair representation in each and every general assembly, and when a man is presented, whom you know will be derelict in his duties or in other ways unreliable, then defeat him. If you fail, follow him up and defeat him at the general election. If again you fail, then bring all the force possible to bear to convert him. Failing in that, try to educate him to the point that he will see it to his interest not to oppose the measure. I am confident that we are all too ready to criticise those who are denominated politicians. I fear that they are often unjustly looked upon as being unreliable and afraid of arousing the opposition of their constituents. After having twenty years' experience in working with legislative bodies, I can say without reservation that they are composed, for the most part, of intelligent and well meaning men, whom, when they fail to grant our requests, we are too ready to criticize. The fault lies as much with ourselves as with the members of the legislatures. It is necessary that those men should be thoroughly informed in regard to each and every measure submitted to them, and in such a way that they can thoroughly understand and comprehend that it is for the greatest good of the greatest number, and not some selfish whim for the aggrandizement of a few individuals. My personal observation and experience with the legislature of Ohio—probably as conservative a body as exists in the Union—is, that when a measure is presented to them in the right light, and there has been adduced evidence sufficient to convince them that the measure will benefit the entire state, they will vote almost solidly for it. There is probably no state in the Union that has more interests to be subserved in obtaining medical legislation than Ohio, as there are 13 medical colleges in the state, all having a deep interest in the prosperity of their institutions and, of course,

greatly interested in any legislation that may be detrimental to them; yet the colleges have not opposed any measure looking to a higher education of physicians, but on the other hand they have joined shoulder to shoulder, and rendered most valuable service. The opposition encountered will come largely from a class of people known as quacks, vampires, mountebanks, charlatans, and impostors, who are always present to further their pernicious practices. They, of course, will oppose any legislation that interferes with their illegal transactions or restricts them in any way; and they are not to be ignored, as they will contend for their personal interests; and only by a careful course of explanation and reasoning with the members of a general assembly can such evil influences be counteracted.

*Reciprocity.*—While the subject of reciprocity is only indirectly concerned with the question before us, allow me to say a few words relative to it. The recognition of the license of one state by the others is now being agitated, and it is thought by some to be very desirable; yet I would say to the confederation that it should deal with this matter in a most cautious and delicate way, as there are serious evils that may grow out of it. I find that Indiana, Maryland, Wisconsin, and Ohio have laws empowering the board to enter into reciprocity with the other states. The reciprocity clause in the Ohio law might possibly be of interest to the members of this organization; therefore, I trust that I may be pardoned for reading it, which is as follows: "Provided further that the board may in its discretion dispense with the examination in the case of a physician or surgeon fully authorized to practise medicine or surgery in any other state, territory, or the District of Columbia, who may desire to change his residence to Ohio and who makes application on a form, to be prescribed by the board, accompanied by a fee of \$50 and presents a certificate or license, issued after an examination by the medical board of such state or territory or the District of Columbia, accorded only to applicants from states, territory, or districts whose laws demand qualifications of equal grade with those required in Ohio; but such examinations shall not be dispensed with unless under the laws and regulations of the state, territory, or the District of Columbia; equal rights and privileges

are accorded to physicians and surgeons of Ohio, holding the certificate of the board, who may desire to remove to, and practise in such state, territory, or the District of Columbia."

You will observe that the clause just read is very carefully expressed, as if not properly administered it might prove a menace to the remainder of the law. The great barrier that has always existed and exists to-day, to prevent reciprocity, is the absence of a minimum standard of requirements, and until there is a uniform standard adopted by all the states, general reciprocity will be impossible. A state with a high educational standard cannot be expected to recognize the license of another state that only requires a common school education. The whole object of medical legislation is to protect the citizens of each state from ignorance and incompetency, and hence when the boards are doing their sworn duty they cannot receive certificates from states that license men of inferior qualifications. The majority of states in the earlier stage of legislation were necessitated to license men without an examination, and states that have examinations cannot be expected to recognize such certificates, for hundreds of them were issued to men who had never received either a preliminary or a medical education. Yea they were issued to men who could neither read nor write intelligently. This is a sad reflection, but nevertheless it was a necessity, from the fact that the law specified, under the registration Acts, that men after having been in practice for a certain number of years were entitled to practise, and they were always able to find some one who would vouch for them and swear to the statement that he knew them to be in absolute practice for a period covering the number of years required by the statutes. No one offering objection, the board had but one thing to do, and that was to issue a license, and thereby render such persons, in the eyes of the law, the peers of the most competent and accomplished physicians.



# NATIONAL CONFEDERATION OF STATE MEDICAL EXAMINING AND LICENSING BOARDS.

PROCEEDINGS OF THE TENTH ANNUAL MEETING, HELD AT  
HOTEL TRAYMORE, ATLANTIC CITY, NEW JERSEY,  
MONDAY, JUNE 4TH, 1900.

## MORNING SESSION.

The confederation met at 10 A.M., and was called to order by the President, Dr. J. N. McCormack, of Bowling Green, Kentucky.

Prayer was offered by the Rev. C. H. Fitzwilliam, of Atlantic City, after which the Hon. F. P. Stoy, mayor of Atlantic City, was introduced, who delivered an address of welcome.

Dr. W. Blair Stewart welcomed the confederation on behalf of the medical profession of Atlantic City.

The response to these addresses of welcome was made by Dr. N. R. Coleman, vice-president of the confederation.

On behalf of the Committee of Arrangements, Dr. Stewart made some announcements of local interest to the members.

The next thing in order was the report of the secretary-treasurer, by Dr. A. Walter Suiter, of Herkimer, N. Y.

Dr. Suiter made the following verbal report :

*Mr. President and Members of the Confederation.*—My report as secretary-treasurer, I regret to say, will be brief and incomplete because of the fact that illness and unusual pressure of daily duties has prevented me from making it in writing. It was my intention to take this occasion to recount statistically the great work that has been accomplished in recent years in the line of advancing the standard of medical education throughout the country and in the matter of state licensure, for which we as an advisory body must arrogate to ourselves in great degree the credit.

I desire to congratulate the members of the Confederation upon the fact that we have now reached the beginning of the year that will mark the first decade since our organization was projected. Ten years ago, about this time, a few gentlemen devoted to the work of promoting the cause of advanced medical education, and who were officially connected therewith, met and took the preliminary steps leading up to the organization of this Confederation. At that time there were few, comparatively speaking, medical examining and licensing boards. Now a simple reference will serve to show the extensive growth of the system, and demonstrate the immense value to the

profession and the public of the application of the underlying principles which it is our purpose to inculcate.

(Here Dr. Suiter mentioned the political divisions of the United States that now confer the right to practise medicine only after examination; also those that require the approval of duly qualified boards, those that have mixed examining boards with reference to the several schools of medicine and those that have separate examining boards for each recognized school.)

These statistics, taken from the work recently prepared by Henry L. Taylor, Ph.D., under the direction of James Russell Parsons, Jr., M.A., speak for themselves and carry their own comment.

And surely the influence of this Confederation must have had no small part in this beneficent propaganda.

The duty devolves upon the secretary-treasurer to call particular attention to our financial condition and to certain facts connected therewith. Several years ago we began the publication of our transactions. The first transactions published were those of the sixth annual meeting, which was held in Atlanta, Georgia. The transactions for 1897 were published and distributed. In 1898, owing to the incompleteness of the meeting appointed to be held in Denver, Colorado, the publication lapsed. The transactions for 1899 were published and a large number of copies distributed. The latter was a very interesting and instructive brochure of 78 pages, and I desire to state that I have a considerable number of copies on hand at the present time for distribution to those who may apply.

During the past year the condition of the treasury would not permit the publication of the transactions as in other years, but the Bulletin of the American Academy of Medicine published the proceedings and most of the papers. It has been the custom heretofore for the Bulletin (which is our official organ) to publish the papers and proceedings of the Confederation in one number. This enables us to secure a reprint with an appropriate cover and title as "Transactions," and a portion of the cost is thus borne by the Bulletin. This year our financial condition did not allow us to secure but a comparatively small number of reprints which have been sent only to the secretaries of the various boards and to medical and university libraries in various parts of the country that have requested copies for the purpose of keeping them on file for reference.

I have in my possession a communication which I will read in this connection from the editor of the Bulletin of the American Academy of Medicine. It is as follows:

ATLANTIC CITY, N. J., June 2, 1900.

*A. Walter Suiter, M.D., Secretary National Confederation of State Medical Examining and Licensing Boards:*

DEAR DOCTOR.—When the American Academy of Medicine offered the free use of the pages of its Bulletin to your organization, it was with the design

of running the proceedings and papers through the year. This is evidenced by the Bulletin itself for the first two or three years after the agreement was made. We then felt ourselves in a position to publish all the papers of the three societies, using the Bulletin in a single number for each, and find other material for the remaining three numbers for the year. The effort has been made to make these numbers of value by furnishing information not otherwise easily accessible. Unfortunately, this plan has not secured sufficient additional patronage to pay the increased expenses entailed by it. As a consequence, the expenditure of the last year for the Bulletin alone has been in excess of the entire income of the Academy. Hence, it is absolutely necessary to retrench during the coming year. This confession is not to ask for the dissolution of the agreement which has caused so pleasant a relation between the two societies, but to explain why it will be necessary for us to go back to the original plan and scatter the papers through the year to save the increased expenditure caused by the preparation and printing of the special articles, as was done last year.

At the same time, I would be pleased to have the opinion of your confederation as to the value of these special reports, more especially that relating to boards of examiners. I accompany this with a copy of the report for last year, the report for this year, giving essentially the same information, arranged a little differently, being still in the printer's hands. I ask this to know if it be worth while to make the effort to enlarge the subscription list for the purpose of resuming the publication of these and similar reports, relating to our hospitals, colleges, etc. I will also be pleased to have any suggestions as to the conduct of the Bulletin. I have attempted to make it a journal useful in the one field of the training and life of the physician; to supply information concerning the doctor, his making, and his life. I am able to see where many improvements could be made, did its income permit; and I am sure you can give many valuable suggestions, if you will give the subject your consideration.

Very truly yours,

CHARLES MCINTIRE,  
*Secretary.*

This letter of Dr. McIntire deserves your careful consideration and I trust that the members of the Confederation will strive to increase the patronage of the Bulletin, which serves us so excellently, by increasing its subscription list and thus furnish material aid in the matter of the publication of our transactions.

Let me express the hope that all will appreciate the necessity, by prompt payment of the annual dues, for improving the condition of the treasury, in order to insure the continuance of our good work and the extension of our influence. It will be a great misfortune if the valuable papers and discussions of this meeting shall fail to come to the notice of all who may be interested through lack of funds.

A communication has been handed to the secretary suggesting the ap-

pointment of a committee, in order to further the movement to bring about the establishment of interstate reciprocity, together with a resolution. The resolution is as follows :

*Resolved*, That a committee of three or five be appointed to consider and report upon plans and recommendations as a basis of interstate reciprocity between the various boards of registration and examination throughout the country.

The annual statement of the treasurer will be handed to the executive council in accordance with the rule.

I ask the indulgence of the Confederation for having presented a verbal and imperfect report.

On motion, the report of the secretary-treasurer was accepted and ordered published in the proceedings.

At this juncture, Dr. N. R. Coleman, vice-president, took the chair, and President McCormack delivered his address. He selected for his subject : "The Kentucky Medical Practice Law."<sup>1</sup>

Dr. Augustus Korndoerfer, of Philadelphia, moved that a committee of three be appointed to consider the suggestion contained in the president's address, and report as soon as possible. Seconded by Dr. Suiter and carried.

*The President* : I will appoint on that committee Dr. Augustus Korndoerfer, Dr. Charles A. Lindsley, and Dr. N. R. Coleman.

Dr. Charles A. Groves, of East Orange, New Jersey, then read a paper entitled "Associate Medical Examining Boards."<sup>2</sup>

Dr. Henry Beates, Jr., of Philadelphia, read a paper entitled "A Brief Review of the Medical Curriculum of the United States with Special Reference to Its Defects and Indicated Modifications as Demonstrated by the State Medical Examination for Pennsylvania."<sup>3</sup>

Dr. Augustus Korndoerfer, of Philadelphia, read the following report of the committee appointed to consider the suggestions contained in the president's address :

Your committee on president's address respectfully report that the "supervision of the professional methods of licenses in order to insure correct ethical conduct as suggested should meet with the approval of this association."

We further would commend his advocacy of a full four years' course in the actual study of medicine prior to licensure.

<sup>1</sup> See p. 261.

<sup>2</sup> See p. 266.

<sup>3</sup> See p. 281.

We would also commend to the favorable consideration of this association, the recommendation to make the examination for licensure as practical in its character as may be possible.

Finally, in regard to the subject of reciprocity, we would suggest that, though reciprocity is essentially our final object, in consideration of the great variance in medical thought and method, both as to the scope of the medical college curriculum, and requirements for matriculation and graduation, as well as in consideration of the divergent views of our legislators upon the legal requirements for licensure, we must concede its present impossibility of accomplishment. Nevertheless, we would urge upon the members of this association such constant effort at the harmonizing of thought, method and law as will tend toward the development of state reciprocity in licensure.

[Signed]

AUG. KORNDORFER, *Chairman.*

C. A. LINDSLEY,

N. R. COLEMAN,

COMMITTEE.

*Dr. Swarts*: I move that the report of the committee be received, placed on file, and taken up for discussion at the pleasure of the confederation. Seconded and carried.

On motion, the confederation then adjourned until 2.30 P.M.

#### AFTERNOON SESSION.

The confederation reassembled, at 2.30 P.M., and was called to order by the president.

Dr. J. D. S. Smith, of Connecticut, Dr. Emil Amberg, of Detroit, Michigan, and Dr. Walter L. Barber, of Connecticut, were elected members of the confederation.

Dr. Emil Amberg, of Detroit, Michigan, then read a paper entitled "The Cooperation of the Medical Profession of the United States with the National Confederation of State Medical Examining and Licensing Boards in Establishing Interstate Reciprocity for the License to Practise Medicine."<sup>1</sup>

The president appointed as the Committee on Interstate Reciprocity and Uniform Medical Legislation, the following: Dr. W. A. Spurgeon, *Chairman*, Muncie, Indiana; Dr. Gardner T. Swarts, Providence, Rhode Island; Dr. Emil Amberg, *Secretary*, Detroit, Michigan; Dr. Augustus Korndorfer, Philadelphia, Pa.; Dr. E. B. Harvey, Boston, Massachusetts.

<sup>1</sup> See p. 293. During the discussion of the paper a resolution was offered by Dr. Wm. A. Spurgeon, of Indiana, relating to an appointment of a committee, which was discussed along with the paper and cannot well be separated from it. [ED. BULL.]

Dr. N. R. Coleman, of Columbus, Ohio, read a discussion on "What Steps Shall Be Taken To Establish A Uniform Standard of Preliminary Requirements in Accordance with the Recommendations Contained in the Report of the Committee on Minimum Standards, Adopted June 5th, 1899?"<sup>1</sup>

Dr. William Warren Potter, of Buffalo, presented the following verbal report of the executive council:

Your executive council has considered the report of the secretary-treasurer, and has audited the finance account, which it finds to be correct in every detail. Your committee recommends that the report be adopted by the confederation.

The other matters considered by the executive council have been met by the resolution just passed, and the committee appointed. That subject was taken up, but as it has already been met, there is no necessity for a further report.

On motion, the report was adopted.

*The President* : I now wish to renew my resolution to appoint a committee from this body to confer and act with a similar committee from the Association of Medical Colleges in regard to the question of requirements. There is room for good work to be accomplished by these two bodies, and we should work in touch with each other. Seconded and carried.

The following were appointed on this committee:

Dr. Charles A. Groves, East Orange, N. J.; Dr. Henry Beates, Jr., Philadelphia, Pa.; Dr. N. R. Coleman, Columbus, Ohio; Dr. James A. Egan, Springfield, Ill.; Dr. J. N. McCormack, Bowling Green, Ky.

#### ELECTION OF OFFICERS.

The following officers were elected for the ensuing year:

*President*—Dr. J. N. McCormack, Bowling Green, Ky.

*First Vice-President*—Dr. N. R. Coleman, Columbus, Ohio.

*Second Vice-President*—Dr. James A. Egan, Springfield, Ill.

*Secretary-Treasurer*—Dr. A. Walter Suiter, Herkimer, N. Y.

*Executive Council*—Dr. William S. Foster, chairman, Pittsburgh, Pa.; Dr. Joseph M. Mathews, Louisville, Ky.; Dr. William A. Spurgeon, Muncie, Ind.; Dr. William Warren Potter, Buffalo, N. Y.; and Dr. Augustus Korndoerfer, Philadelphia, Pa.

There being no further business to come before the meeting, on motion, the Confederation then adjourned.

<sup>1</sup> See p. 319.

## SECRETARY'S TABLE.

This number is devoted to the interests of the National Confederation of State Medical Examining and Licensing Boards, and it is pleasant to note that the interest in the organization is increasing. One not acquainted with the facts, might well ask what has been accomplished during the ten years of its existence. The society has met year after year, discussed various questions connected with medical examinations, voted certain resolutions, but the chaos seems to be even more marked than at the first. But when one remembers how long the American Bar Association has been endeavoring to secure a uniform method of procedure in the conduct of litigation of various kinds, and how long the agitation has been for uniform marriage and divorce laws, one is really surprised at the progress made towards the desired condition in the state requirements for the practice of medicine; and much of this progress has been directly due to the Confederation.

Upon reading the proceedings, it is refreshing to see that the members of the Confederation from Kentucky are still exulting over the efficacy of their law, and well they should, for it is one of the most effective in the United States for a certain purpose. As a test of the individual ability of the applicant for license, it falls way below in efficacy the laws of many other states. And, consequently, when this condition is made the standard, it is ranked below them. As a rule controlling the correct manner of life of the practising physician, it is far in advance of any law in any other state. The difference is this, in those states requiring a state examination, the ability of the individual is inquired into before granting him a license. After granting the license, he can do pretty much as he pleases without interference. In Kentucky, every one certified to by any one of an approved list of colleges, is permitted to practise, but woe betide him, if, after opening an office, he does not observe the ordinary rules for upright practice. In other words, the Kentucky examination is entirely practical, depending upon the man's behavior after he begins to practise. This distinction is very seldom

mentioned, and thus causes a degree of confusion, regarding the Kentucky system, as compared with those of other states.

As to the advantage of a single or multiple board of examiners, while the pros and cons are ably presented in the discussion there can be very little doubt of the necessity of a single board of revision ; and it is much less complex to have this board also perform the duties of examination. Reciprocity, being still a *questio vexata*, a great deal of attention was paid to it, developing, as will be seen, a pronounced opposition to the plan on the part of some.

The meeting for 1901 ought to be a valuable one, especially so as it will be held in the state first holding a state examination for license.

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#### DISINGENUOUS.

A few months ago, one of the medical journals published in the United States contained the following editorial note :

"*Just So*.—The new medical law in Ohio (says *The Medical Visitor*) does not give any school a majority. In this respect it is a good law and if all the states are to have laws we do not see why such a board could not be arranged in every state. In that way no school could perpetrate the outrage that was done in West Virginia when they turned down a homeopathic applicant who had passed the examinations of the Pennsylvania and New York State Boards because he happened to be a homeopath. If the old school had the power it would wipe out of existence every homeopathic physician in the United States. They remind one of the old couplet

'When the devil was sick, the devil a monk would be.'

"When they need help they will do anything, but let them get the power in their hands and they forget. Like the devil,

'When he got well, devil a monk was he.'"

The writer of this note has been taught several things relating to medical journals, and medical examining boards during the past few years. Among the facts thus demonstrated are : (1) Medical journals, as a class, are not careful to verify alleged statement of facts. The probabilities were that the journal above quoted did not take the pains to verify this statement concerning the West Virginia board. (2) That the accusations of unfairness upon the part of any members of a mixed board of examiners come from persons who have no personal knowledge



of the relations between the various members of the board.

Consequently when the serious charge was made against a board of examiners, the Bulletin felt it to be its duty to investigate. The search resulted, among other results, in a letter from the *homeopathic member* of the board to the journal in question, with the request that it be forwarded, which was done. One sentence in this communication expresses so admirably the uniform testimony of the relations between the various members of a mixed board that it is quoted by way of contrast.

"I marked his paper on materia medica, and by request of some two or three members of the board,<sup>1</sup> gave him every point I conscientiously could, that it might help him out on the other branches."

This letter is a positive denial of the assertion. The journal to whom the letter was addressed published it in full with these preliminary remarks :

"In consequence of some remarks which we made about the evils of the examining board system as operated in the various states, we received a letter from Dr. George Lounsbury, the homeopathic contingent on the West Virginia Board of Examiners.

"We were glad to get this letter, though Dr. Lounsbury did not so intend it, we find that it furnishes a strong argument against the system at present *in vogue*.

"The case referred to was that of a homeopathic physician (we do not know his name), a graduate in medicine from a first class Eastern college who at one time successfully passed the Pennsylvania State Board of Examiners; wishing to practise in West Virginia, he was required to stand an examination before the board and was rejected.

"This is the case in a nut-shell,<sup>2</sup> and we ask in good faith if such a system is not an abomination?

"A graduate fresh from college can usually pass any of the boards; while he is busy with the practice of medicine, he becomes less and less able<sup>3</sup> to stand a technical examination on the things learned in colleges. But is he any the less fitted to do the work of his profession?<sup>4</sup> Certainly not.

"It is probably true that not one member of the West Virginia Board (or

<sup>1</sup> Members of "the old school," who are so desirous of wiping "out of existence, etc."

<sup>2</sup> Not a word about the serious charge against the board of rejecting him independently of his examination.

<sup>3</sup> Dr. Lounsbury says in his letter "He fell down on the diagnosis of scarlet fever and measles."

<sup>4</sup> When he has forgotten the difference between scarlet fever and measles for example.

any other board) could come to — and pass the examination ordinarily given to senior students in any of the — medical colleges.

"Put the shoe on the other foot, gentlemen, and see how it fits.

"A system which requires a physician to be examined in technicalities every time he goes from one state to another is radically wrong and violates every principle of fraternity."

It is not our purpose to comment upon this at any length. We wish to say that notice is not taken of the article because a particular variety of physicians is mentioned, that is a mere incident, but to show how easily untrue charges can be made against our boards of examiners and to their harm. As to the standing of a journal that is willing to make such a charge, and then is not manly enough to acknowledge the error—the less said the better.

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March 16, 1901, will probably be an historic date for the American Academy of Medicine. About 30 of the members residing in Philadelphia and vicinity, accepting the invitation of a committee headed by President Risley, held a very pleasant meeting and reunion at the Stratford on the evening of that date. As the Academy is devoting its efforts to social medicine, there is greater need for solidarity and enthusiasm on the part of its members than if it had any other possible object for its organized life. The membership is too scattered to secure as much of these as is desired at the annual meetings. These local reunions may afford the opportunity hitherto lacking, and mark an increase in the power of the Academy for good. The transactions of this first of local meetings can be told briefly. The members gathered in a parlor, there were the greetings of friends and introductions of those who had not previously met, with a pleasant social hour until dinner was served. When the coffee was reached on the excellent menu, Dr. Risley introduced the business of the evening. A committee to arrange a similar meeting for the coming year was appointed, and a series of after-dinner talks discussed the value of liberal training before entering upon medical studies, and the concessions, if any, to be made to the college-bred by the medical school. The discussion was informal, and wandered from the theme as above formulated, but was the more valuable, because it brought out the complexity of the whole subject and the need

for many improvements before our medical educational methods can be viewed with entire satisfaction. This action of Philadelphia is worthy the consideration of all the fellows. There is no apparent reason why half-score meetings of this character could not be held each year.



Trade methods and professional customs have little of anything in common. One of the anomalies of the day is the effort of many medical men to use trade methods in the pursuit of their profession. But there are points of contact where there can be mutual support and benefit.

Before the days of electric and water motors, when the small boy pumped the bellows, an organist was giving a recital to a few admiring friends. They were loud in their praises as he rendered selections from Bach, Mozart, Handel, Guilmant and the rest, when suddenly the harmonies disappeared in a lingering diminuendo of a wail, and the shock head of the youthful impeller of the winds appeared around the corner, as he said: "Say, I want you to know that I am making this music." At the last analysis, how much of the odes of Horace, the epics of Vergil, or the gentle cadences of any of the Latin poets of their time was really because of their patrons!

Our faculties may condemn, our feelings may revolt from the methods making the rapid aggregations of enormous fortunes; but the college endowments of a Rockefeller, or the instituting of public libraries by a Carnegie, are surely methods of blowing organs filled with melodies potential for good.

The average physician dreads the visit of the gentlemanly agent with his grip-sack of samples, primarily because the suave agent of the "X" people desires to convince him of the superiority of the preparations he presents above all others; even above those brought by the courteous representative of the "Y" firm only the day before, with the positive assurance that there was "*ne plus ultra*." So it happens that there is much friction between the commercialism of administering therapeutic agencies, *i. e.*, that part of the journey which brings them to the hand of the physician, and the professional part of their journey from physician to patient.

It is refreshing, consequently, to note that commercial success enables some of these firms to do much for pure science, or abstract knowledge.

Quite recently two facts have been brought to our attention, which in a very pleasant and commendable way, illustrate the statement. Oddly enough both establishments are in Detroit.

Dr. Joseph McFarland, of Philadelphia, a graduate of the University of Pennsylvania, in the class of 1881, has been called as an additional worker in the biological laboratories of Parke, Davis & Co., in order that an increased amount of research work can be carried on by them.

The *Michigan Alumnus* (University of Michigan), for February of this year, gives an account of the Stearns' Fellowship in Pharmacy in the University. We glean from the article that, while the fellowship is not endowed in the sense that a sum of money has been placed in the hands of trustees, the interest from which pays the fellowship, Mr. F. K. Stearns, of F. Stearns & Co., has provided the necessary sum of money for several years to support the fellowship.

It is pleasant thus to record the service rendered by these firms in the advance of pure science.



If the press department of the Pan-American Exposition at Buffalo reflects the artistic excellence of the Exposition itself, the standard is set very high. They have lately issued a dainty booklet full of illustration and art. Probably the management has already thought of the desirability of securing stop-over privileges for those who pass through Buffalo in going to and returning from the meetings at St. Paul. Many will be glad to avail themselves of the opportunity who will not care to take the second journey.



Dr. Suiter, the secretary of the National Confederation of State Medical Examining and Licensing Boards, desires that the attention of the readers of the Bulletin be called to the next meeting of that society as one of great interest and importance. It is to be held at St. Paul, Minn., on Monday, June 3rd. There will be reports of the Committee on Medical Legislation and on

Reciprocity, in addition to whatever papers may be presented. It is of the utmost importance that every state board, regulating in any way the practice of medicine, be affiliated with this Confederation, and take an active part in its sessions. In addition, there are many physicians who, while not officially connected with any board, are interested in the subject of state licensure, and should be at this meeting. All communications relating to the program should be sent to Dr. Suiter, Herkimer, N. Y., before the first of May.

\* \*

The Association of American Medical Colleges will hold a meeting of more than usual importance this year. The changes which have taken place in the educational methods of the medical schools have been so rapid that the association is constantly struggling with its constitution to keep it up with the procession. It is an evidence of the sincerity of the leading minds of the association that they are thus willing to present and discuss amendments year after year. It speaks well for the interest of the rank and file that they are thus willing to seriously consider these oft-recurring changes. Last year, for reasons unnecessary to state, the association got into a parliamentary snarl. To prevent any possible miscarriage, several of the colleges have proposed the action of last year along with certain other changes, and have sent copies of the proposed action to the colleges,—members of the association. This will bring the whole question properly before the association, and if adopted by it, can become its law without postponement. It is hoped there will be a full attendance of the accredited representatives of the various colleges.

\* \*

The American Academy of Medicine will complete its 25th year, and the St. Paul meeting promises a program worthy of the occasion. Without definite planning, it will illustrate the various phases in the Academy's life. The report on the relation of the general college to the medical school brings to mind the earlier years when all the strength of the Academy was devoted to insisting upon the need of proper preliminary education. Then as the years rolled by, the necessity for revision of

the work of the medical college became manifest, and the Academy discussed the various methods of state licensure. This phase of its history will be recalled by the Symposium on Reciprocity in Medical Licensure. Then came the time when the profession awoke to the urgency of the need of scholastic training, both previous to and during the medical course, and the protection of the people by a state examination. And it was said that there was no further work for the Academy to do, when the whole field of medical sociology opened for its possession; and the Symposium on Institutionalism illustrates this latter phase of its life.

It is too early to present a list of the papers, since some have only been promised provisionally, and the precise titles of others have not yet been furnished, but suffice it to say, unless all signs fail, there will be an abundance of excellent papers worthy the attendance and attention of every Fellow of the Academy.

The meeting will be held at the headquarters of the Academy—the Hotel Aberdeen—beginning with an Executive Session on Saturday morning, June 1st, at eleven, the Open Session beginning at twelve. The president's address will be delivered on Saturday evening, and the Annual Social Session held on Monday evening.

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Attention is called to the proposed contents for the June number of the Bulletin. It will give in a single number the annual review of the medical colleges in the United States, and the report of the results of the examinations before the State Boards of Medical Examiners. The effort will be made to arrange this material so as to be of easy reference, giving under each state a brief statement of the method necessary to obtain the right to practise within the state, the address of the official to whom to make the application, the results of the examinations in the state, the medical colleges, and the tabular statement of how their graduates fared before the various state examining boards. The compiler of this annual report is gratified in being led to believe that it is used more and more each year, and this attention is called to it to suggest to any who may desire additional copies to order them early, as only a sufficient number is printed to meet the usual demands.

## LITERATURE NOTES.

## TRANSACTIONS OF MEDICAL SOCIETIES.

- I. TEXAS STATE MEDICAL ASSOCIATION. 32ND ANNUAL SESSION HELD AT WACO, TEXAS, April 24-27, 1900.
- II. STATE MEDICAL SOCIETY OF WISCONSIN FOR THE YEAR 1900.
- III. MEDICAL ASSOCIATION OF THE STATE OF ALABAMA (THE STATE BOARD OF HEALTH). Organized 1847. Meeting of 1900.
- IV. CONNECTICUT MEDICAL SOCIETY, 1900. 108TH ANNUAL CONVENTION HELD AT NEW HAVEN, May 23rd and 24th.
- V. IOWA STATE MEDICAL SOCIETY. Volume xviii. 49TH ANNUAL SESSION, 1900. pp. 444.
- VI. MISSISSIPPI VALLEY MEDICAL ASSOCIATION. 26TH ANNUAL SESSION HELD AT ASHEVILLE, N. C., October 9, 10, and 11, 1900.
- VII. AMERICAN CLIMATOLOGICAL ASSOCIATION FOR THE YEAR 1900. Volume xvi. pp. 210.
- VIII. TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third Series, Vol. xxii. Philadelphia. Printed for the College. 1900. pp. lvi + 282.

In the review of these volumes of transactions, we leave to other journals to notice the contributions to medical literature, confining our view strictly to medicosociologic topics.

I. The Texas Society spent a great deal of time upon the relation of the county societies in affiliation with the state society, and the best way to conserve their active cooperation. As it is now, there is an initiation fee and annual dues to be paid by the delegates; and an amendment was offered, for each society to pay a small sum, proportionate to their membership, which would entitle them to send delegates without an additional tax.

The subject of medical legislation also received attention. The last session of the legislature failed to pass a medical practice Act to replace the very unsatisfactory law now on the statute books; and an effort will be made to secure legislation this winter.<sup>1</sup> The Societies Committee recommend a three-boards of examiner's bill, but does not provide for a central overseeing board, which is absolutely essential for the proper protection of the people (not the profession) in a law of this character.

<sup>1</sup> A new law has been passed in Texas.

There was also some criticism on the present machinery for the conservancy of public health, and an Act creating a state board of health was also suggested.

II. Wisconsin has a Wisconsin League of Medical Licentiates, for the purpose of bettering the laws regulating medical practice and of elevating the educational standing of medical men. She also has a snarl in the registration of her older practitioners, a procedure not contemplated in her medical license act in 1901. There will be a joint session of the Wisconsin State Medical Society with the Homeopathic and Eclectic Societies.

III. The Alabama Society is *sui generis*. Since a tree is known by its fruits, notwithstanding its peculiarities, it is one of the most efficient medical societies in the United States. It is a state medical society, and its board of censors perform the duties of a state board of health, and the board of medical examiners for the state. The president delivers a message and not an annual address, and certain definite duties are imposed upon the vice-presidents. This volume gives the transactions of the meeting for 1900, the report of the censors, the roll of the county societies, and of the "counsellors" of various degrees, and the various addresses and papers read at the meeting.

The society adopts ordinances and it is refreshing to read them. Evidently the Alabama physician appreciates the distinction between a code of ethics and a code of law.

V. The president of the Iowa Society is to be commended for making live topics concerning the profession the theme of his address. It is unfortunate that he did not seek for accurate information concerning the form of government in force in the United States, and the real intent of medical practice Acts. His address might have been less vigorous but more forceful.

VIII. Instituted in 1787, the college shows no signs of decreasing vigor because of age. In addition to the president's address and a memoir of one of its deceased fellows, the volume presents 27 papers read at the general sessions in 1900, and a list of the titles of the papers read at the sectional meetings.



## REPORTS OF BOARDS OF HEALTH.

- I. ELEVENTH REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF MAINE FOR THE TWO YEARS ENDING DECEMBER 31, 1899. Augusta: Kennebec Journal Print. 1900. pp. 319.
- II. BIENNIAL REPORT OF THE DEPARTMENT OF HEALTH OF THE CITY OF CHICAGO FOR THE YEARS 1897 and 1898. pp. 319.
- III. REPORT OF THE MISSISSIPPI STATE BOARD OF HEALTH FROM SEPTEMBER 30, 1897 to SEPTEMBER 30, 1899. pp. 322.
- IV. SIXTEENTH REPORT (THIRD BIENNIAL) OF THE STATE BOARD OF HEALTH OF THE STATE OF NEW HAMPSHIRE FOR THE TWO YEARS ENDING NOVEMBER 1, 1900. pp. 251.
- V. THIRTY-FIRST ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF MASSACHUSETTS. pp. lxvii+812.
- VI. TWENTIETH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF RHODE ISLAND FOR THE YEAR ENDING DECEMBER 31, 1897. pp. 171, 296.
- VII. FIFTEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH AND VITAL STATISTICS OF THE COMMONWEALTH OF PENNSYLVANIA. 2 vols. pp. 795, 796-1269.

I. This report usually publishes several special papers of decided value. In this volume are to be found the following : "Experiments with Disinfectants," by Dr. F. N. Whittier ; "Vaccination and Vaccine Lymph," by Dr. C. D. Smith ; "Tuberculosis," by A. G. Young ; and "Formaldehyde as a Milk Preservative," also by Dr. Young.

The paper on Tuberculosis has a chapter on Sanatariums and affords interesting reading as a phase of institutionalism.

II. This report shows the many activities in the health departments of the modern city.

Chicago has two public baths entirely free. One of these was open for 224 days in 1898, and gave 78,746 baths, a daily average of 352 ; the other was open for 288 days, with a total of 108,922 baths, a daily average of 374, making a daily average for the city of 726 baths.

III. The Mississippi report is devoted exclusively to the accounts of work done, by the officials of the board, and the minutes of the board itself. We learn that during 1898 and 1899, there were 291 applications to practise medicine ; of this number 150 passed the examinations and received licenses, and about

three-fifths of those rejected were not graduates in medicine. An item which appears very singular to a Pennsylvanian is the following:

The State Board of Health covered back into the state treasury \$3,400.07 as an unexpended balance of its appropriation for the year 1898, and said board has on hand to its credit in the state treasury \$8,466.96 as an unexpended balance for the year 1899.

But as the Pennsylvania Board does not receive as much in a year as this unexpended balance, a reason can easily be found for the apparent singularity.

IV. The problems of New Hampshire differ widely from those of Mississippi. Yellow fever receives no consideration, smallpox is indeed a common subject, but the conservation of the salubrity of the summer resorts finds no counterpart in the other. The state is to be congratulated upon its giving authority to its state board of health to preserve the purity of the waters used for domestic purposes.

V. There is always a peculiar satisfaction in reviewing the report of the Massachusetts Board. The volume is substantially bound, has fairly good paper and careful press-work, and each volume contains direct contributions to sanitary science. The present volume is no exception.

VI. The Plantations present as attractive a volume as that of Massachusetts. While it does not show an equal amount of scientific research, there is ample evidence to show the board is alert to all conditions and is exercising a most excellent sanitary supervision of the state.

VII. About 300 pp. of the Pennsylvania report are devoted to the examining boards in pharmacy and medicine (one is sorry to see in the latter report the word "Allopathic" as the designation of a class of physicians. The word would be excusable in a report of the Georgia Board, since it is the nomenclature of the Act of the Assembly. This is not the case, however, in Pennsylvania). The remaining 900 and more pages belonging more especially to the board of health, while showing a marked improvement over the report of a few years ago, would still be benefited by a judicious use of an editor's "blue pencil;" *e.g.*, the full program of the Minneapolis meeting of the American

Public Health Association on p. 492 ff. The chief defect in Pennsylvania is the parsimony of the legislature towards its board of health.

REPORT OF THE COMMISSIONER OF EDUCATION FOR THE YEAR 1898-99. Vol. 2. Washington. 1900. pp. 1249-2518.

Of the many excellent items in this report we have space for only the following paragraphs :

The number of medical students enrolled was 23,778, an increase of 345 over the previous year, the students in the regular schools numbering 21,401; in homeopathic schools, 1,802; in others, 575. All the medical schools which give full courses of instruction report that they have courses of four years except 15 schools, and some of these are preparing to enter upon courses of four years. In 43 schools, the annual session continues eight months or longer, 12 of these schools having sessions of nine months. In several medical schools, the time of attendance now required in one year is equal to the whole time of attendance for a degree twenty years ago.

Dental students numbered 7,354, an increase of 580, while students in pharmacy numbered 3,551.

During the ten years from 1889 to 1899, the number of students in theology increased 18 per cent.; in pharmacy, 26 per cent.; in homeopathic medicine, 55 per cent.; in regular medicine, 75 per cent.; in law, 204 per cent.; and in dentistry, 301 per cent.

#### REPORTS OF MEDICAL EXAMINING BOARDS.

I. THE SECOND ANNUAL REPORT OF THE INDIANA STATE BOARD OF MEDICAL REGISTRATION AND EXAMINATION, INDIANAPOLIS: State Printers, 1900. pp. 351.

II. SEVENTH ANNUAL REPORT OF THE BOARD OF REGISTRATION IN MEDICINE, JANUARY, 1901. Boston: State Printers, 1901. pp. 70.

I. This report, in addition to the official Acts of the board, gives a synopsis of the laws regulating medical practice in the various states, and a list of the licensed physicians in the state.

II. Four hundred and twenty-eight applicants for license were examined in Massachusetts during 1900, of whom 292 or 68 per cent. were successful. The report gives but the totals, which is not as satisfactory to the student of state examinations as the report furnished by the Virginia or Maryland Boards, for example.

JOURNAL OF SOCIAL SCIENCE CONTAINING THE PROCEEDINGS OF THE AMERICAN ASSOCIATION. Number xxxviii. December, 1900. Washington, papers of 1900. pp. 263.

The association publishing this volume is divided in five

departments: Education and art, health, trade and finance, social economy, jurisprudence. The papers read were all of them interesting, some of them erratic. Which are erratic depends, of course, upon the mental bias of the reader. It is an admirable idea to bring together a number of people of different callings to deliberate upon the various phases of social science.

#### UNIVERSITY OF THE STATE OF NEW YORK :

- I. HIGH SCHOOL DEPARTMENT, SIXTH ANNUAL REPORT, 1898. REPORT OF THE DIRECTOR OF BULLTINS. pp. 880.
- II. REGENTS' BULLETIN, No. 47, May, 1899. pp. 208.
- III. REGENTS' BULLETIN, No. 48, October, 1899. pp. 209-432.
- IV. REGENTS' BULLETIN, No. 50, May, 1900. pp. 160.
- V. REGENTS' BULLETIN, No. 51, October, 1900. pp. 161-394.
- VI. REGENTS' BULLETIN, No. 52, February, 1901. pp. 78.

These volumes present a fund of suggestive information. There has been a feeling of unrest in the chaotic condition of the educational system in the United States, which is leading to serious efforts for its correction. Each book in the above list furnishes some material helpful in the solution of the question. It would be well for examining boards and medical colleges to seek professional assistance before formulating entrance requirements, and minimum qualifications, as such action may prevent the necessity of an early revision. A perusal of many of the papers published in the Regents' publications will be helpful to all who are interested in the educational problems concerned in training physicians.

#### CHARITY BOARDS AND ORGANIZATIONS.

- I. THIRTIETH ANNUAL REPORT OF THE BOARD OF COMMISSIONERS OF PUBLIC CHARITIES OF THE COMMONWEALTH OF PENNSYLVANIA FOR 1899. pp. 227.
- II. SIXTEENTH BIENNIAL REPORT OF THE BOARD OF STATE COMMISSIONERS OF PUBLIC CHARITIES OF THE STATE OF ILLINOIS. pp. 392.
- III. TWENTY-SECOND ANNUAL REPORT OF THE STATE BOARD OF CHARITY OF MASSACHUSETTS, JANUARY 1901. pp. 203 + lviii.
- IV. ANNUAL REPORT OF THE STATE BOARD OF CHARITIES FOR THE YEAR 1899. Albany, N. Y. 1900. In 2 vols. pp. 1598.
- V. THE SAME FOR 1900. pp. 182.
- VI. THE QUARTERLY RECORD. A REVIEW OF THE CHARITABLE WORK IN NEW YORK STATE PUBLISHED BY THE STATE BOARD OF CHARITIES.
- VII. TWENTY-EIGHTH ANNUAL REPORT OF THE STATE CHARITIES AID

ASSOCIATION TO THE STATE BOARD OF CHARITIES OF THE STATE OF NEW YORK, NOVEMBER 1, 1900. pp. 182.

VIII. TWENTY-EIGHTH ANNUAL REPORT OF THE NEW YORK COUNTY VISITING COMMITTEE FOR BELLEVUE HOSPITAL AND OTHER PUBLIC INSTITUTIONS, OCTOBER 1, 1900. pp. 95.

IX. THE OHIO BULLETIN OF CHARITIES AND CORRECTION FOR THE QUARTER ENDING DECEMBER 31, 1900.

Space prevents any attempt to review these volumes, but their perusal shows the necessity of many discussions similar to that proposed for the St. Paul meeting of the American Academy of Medicine. The entire medical profession is individually interested in the proper solution of the problems, and no one source of information will convince any one of the fact than a careful study of these excellent reports.

STATE OF NEW YORK, STATE COMMISSION IN LUNACY, ELEVENTH ANNUAL REPORT. October 1, 1898 to September 30, 1899. Albany, 1900. Vol. I, pp. 701; Vol. II, pp. 779.

This report furnishes information regarding the state system, the licensed private hospital system, and the general hospital system of New York. It is valuable for information at first hand. A commendable feature of the New York system is the bimonthly conferences between the asylum superintendents, the members of the commission, and other officials engaged in the care of the insane. The second volume is devoted to the reports of the eleven state hospitals and to the annual report of the state charities aid associations.

TUBERCULOSIS AS A DISEASE OF THE MASSES AND HOW TO COMBAT IT. S. A. Knopf, M.D. New York: M. Firestack, 100 W. 96th St. 1901. pp. 86. Paper, price 25c; in cloth, 50c.

This is the essay which received the International Prize of 4,000 marks by the "International Congress to Combat Tuberculosis as a Disease of the Masses," out of 81 essays submitted for competition. The original essay was written in German; the translation has the advantage that the author of the essay is also the translator. The essay is divided into 30 chapters, and treats in turn of the nature of the disease, the methods of contracting it, what can be done to check the spread of the bacilli, to protect the healthy, to safeguard those who are predisposed, and to aid in recovery. It is written for the general reader, is amply illustrated, and is worthy an extended circulation as a very efficient weapon to assist in combatting the disease.

THIRTY-SECOND ANNUAL REPORT OF THE SECRETARY OF STATE ON THE REGISTRATION OF BIRTHS AND DEATHS, MARRIAGES AND DIVORCES IN MICHIGAN FOR THE YEAR 1898. Edited by CRESSY L. WILBUR, M.D., Chief of Division of Vital Statistics. Lansing, Mich. 1900. pp. clxxii + 154 and 38.

This is the first report for Michigan under the new law making a death certificate a prerequisite for sepulture, and the editor speaks favorably of its working. The total number of deaths for the year (1898) was 29,555 or 12.4 per 1,000 of estimated population. The birth-rate during the same period was 18.2 per 1,000 population. The most frequent causes for death were: Tuberculosis of the lungs (2,153), apoplexy (1,144), organic heart disease (2,016), pneumonia (1,805), cholera infantum (1,782). No other single cause furnished 1,000 deaths.

The initial number of *American Medicine* has appeared, and the published list of those who have taken an active part in its organization is certainly a flattering testimonial to the esteem in which the editor-in-chief and projector of the journal is held by the profession in America. The advertising patronage is likewise flattering. We congratulate the management upon this expression of approval.

As to the journal itself, it would be hard to make it markedly different from the previous one projected by the editor, and be an improvement. It is an excellent example of a medical weekly. Several of the articles are objectionable, in that they are continued, but this is probably due to the fact that the editor desired in this first number to present a number of papers by men prominent in the profession, to show that he had received like commendation from the writers of papers, as he had also received for his subscription list and advertising pages. We wish the effort the success its purpose and principles deserve.

The J. B. Lippincott Company, of Philadelphia, announce "The History of Medicine in the United States," by Dr. F. R. Packard of the same city. Dr. Packard's researches in this field of literature are so well and so favorably known, by his minor contributions, that this more pretentious work cannot help being a valuable addition to the library of any student of history.

# BULLETIN

OF THE

## American Academy of Medicine

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THE AMERICAN ACADEMY OF MEDICINE is not responsible for the sentiments expressed in any paper or address published in the BULLETIN.

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### MEDICAL COLLEGES IN THE UNITED STATES.

#### INTRODUCTION.

The first attempt to give a concise and comprehensive statement of the medical colleges in the United States, as published in the February and April Bulletins for 1900, received many commendations from the profession. For this reason it has been determined to issue a revision of that article this year. It is thought, when its convenience is fully realized by the profession, a sufficient number of copies can be sold to pay for reprinting, in every revision, the entire statement for each college. In the meantime the regular subscribers of the Bulletin will be furnished with all desired information when the changes are indicated, and a reference made to the volume and page where the fuller statement can be seen. This method pertains in most of the colleges, but not in all, for it was also assumed that a complete restatement which would not require the reference to a year-old volume would be more convenient and of advantage to the individual college. Hence a circular was addressed to every college, giving each one the opportunity to have this restatement made in full, at a fixed price, which would repay for the extra expense, editorial, mechanical, and clerical. This offer was made to every college on the list, without exception. It was accepted by some,

declined by others, and received no attention by most. In every case the matter for publication was prepared in the secretary's office, from the catalogue or announcement of the college, the payment upon the part of the colleges being in the nature of co-operation and not an advertisement. When, in the revision itself, reference only is made to the report of last year, the college so indicated has not seen fit to send an announcement, although at least two requests were made for it.

The revision plans to indicate the more important changes in entrance requirements, fees, and faculties, and to give later statistics of students enrolled and the number graduated. Then, under each college, is given the results of the examinations of its students before the various state medical examining boards, as far as it has been possible to collect the statistics.

In connection with this review of the colleges, a revision of the state requirements for the practice of medicine is also given, and the results of the examinations tabulated by colleges, under each state holding examinations during 1900, as far as they have been collected.

Several items of interest will be noted in these revisions. There is a gradual and substantial elevation in the course of the medical schools. The three-year course is becoming conspicuous by its rarity, the term has been lengthened, the entrance requirements advanced. The states, too, are strengthening the cause of medical education by laws regulating the practice of medicine. The examining boards of those states where examinations are required are sifting the students, and the educational value of the medical profession is greatly enhanced as a consequence. Much remains to be accomplished before the suffering portions of the citizenship receive as careful protection by the state as does a steam engine; but in view of what has been accomplished during the past few years, there is ground for thankfulness and encouragement.

## ALABAMA.

(SEE VOL. II, p. 701.)

Alabama requires an examination of every one desiring to open an office to practise medicine in the state. This examination



may be taken before any of the county boards of examiners (in which case the license to practise is limited to the county), or before the state board, whose license is recognized anywhere in the state. The examinations of the county board are reviewed by the state board.

*Executive Officer of the Board.*—Dr. W. H. Sanders, Secretary, State House, Montgomery.

### EXAMINATIONS, 1900.

| Name of college.                                   | Passed.        | Failed.        | Total. |
|----------------------------------------------------|----------------|----------------|--------|
| <b>ALABAMA.</b>                                    |                |                |        |
| Birmingham Medical College .....                   | 10             | 0              | 10     |
| Medical Department, Alabama University .....       | 22             | 2 <sup>1</sup> | 24     |
| Montezuma University .....                         | 1              | 0              | 1      |
| <b>DISTRICT OF COLUMBIA.</b>                       |                |                |        |
| Howard University, Medical Department .....        | 0              | 1 <sup>2</sup> | 1      |
| <b>GEORGIA.</b>                                    |                |                |        |
| Atlanta College of Physicians and Surgeons .....   | 0              | 1              | 1      |
| Atlanta Medical College .....                      | 2 <sup>3</sup> | 2 <sup>4</sup> | 4      |
| Georgia College of Eclectic Medicine and Surgery.. | 2              | 0              | 2      |
| University of Georgia, Medical Department .....    | 1              | 0              | 1      |
| <b>ILLINOIS.</b>                                   |                |                |        |
| Hering Medical College .....                       | 1              | 0              | 1      |
| <b>KENTUCKY.</b>                                   |                |                |        |
| Louisville Medical College.....                    | 1              | 0              | 1      |
| <b>LOUISIANA.</b>                                  |                |                |        |
| Tulane University of Louisiana, Medical Department | 8              | 1 <sup>5</sup> | 9      |
| Medical College of New Orleans University.....     | 0              | 1              | 1      |
| <b>MARYLAND.</b>                                   |                |                |        |
| Baltimore Medical College.....                     | 1              | 0              | 1      |
| Johns Hopkins University, Medical Department ...   | 1              | 0              | 1      |
| <b>MICHIGAN.</b>                                   |                |                |        |
| Detroit College of Medicine .....                  | 1              | 0              | 1      |
| <b>MISSOURI.</b>                                   |                |                |        |
| Barnes Medical College .....                       | 2              | 0              | 2      |
| Washington University, Medical Department .....    | 0              | 1 <sup>6</sup> | 1      |
| <b>NEW YORK.</b>                                   |                |                |        |
| College of Physicians and Surgeons (Columbia) ...  | 3              | 0              | 3      |

<sup>1</sup> One, class of 1900; one, date not given.

<sup>2</sup> Class of 1897 (second examination).

<sup>3</sup> Appeal from Jefferson County Board.

<sup>4</sup> One, class of 1890; one, class of 1895.

<sup>5</sup> Class of 1896.

<sup>6</sup> Class of 1897.

| Name of college.                                             | Passed. | Failed.        | Total. |
|--------------------------------------------------------------|---------|----------------|--------|
| University of the City of New York, Medical Department ..... | 1       | 0              | 1      |
| OHIO.                                                        |         |                |        |
| Pulte Medical College .....                                  | 1       | 0              | 1      |
| PENNSYLVANIA.                                                |         |                |        |
| University of Pennsylvania, Medical Department..             | 1       | 0              | 1      |
| Jefferson Medical College .....                              | 1       | 0              | 1      |
| TENNESSEE.                                                   |         |                |        |
| Chattanooga Medical College .....                            | 9       | 1              | 10     |
| Memphis Hospital Medical College .....                       | 7       | 0              | 7      |
| Medical Department of the University of Nashville            | 5       | 0              | 5      |
| Vanderbilt University, Medical Department .....              | 13      | 3 <sup>1</sup> | 16     |
| University of Tennessee Medical Department.....              | 1       | 0              | 1      |
| Meharry Medical Department of Central Tennessee College..... | 4       | 3              | 7      |
| University of the South, Medical Department.....             | 9       | 0              | 9      |
| VIRGINIA.                                                    |         |                |        |
| Medical Department, University of Virginia.....              | 4       | 1 <sup>2</sup> | 5      |
| Non-graduates .....                                          | 0       | 1              | 1      |
|                                                              | 112     | 18             | 130    |

## MEDICAL SCHOOLS.

### BIRMINGHAM.

#### BIRMINGHAM MEDICAL COLLEGE.

(SEE VOL. IV, p. 466.)

*Graduates in 1900.—14.*

*Students enrolled 1899-1900.—*

|                       |   |   |   |   |   |    |
|-----------------------|---|---|---|---|---|----|
| First-course students | - | - | - | - | - | 43 |
| Second-course "       | - | - | - | - | - | 32 |
| Third-course "        | - | - | - | - | - | 22 |
|                       |   |   |   |   |   | —  |
| Total                 | - | - | - | - | - | 97 |

#### FACULTY.

*Drop* : J. H. McCarty, M.D., T. D. Parke, M.D., W. B. Fulton, DD.S., M.D.

*Add* : W. P. McAdory, M.D., *Chemistry and Toxicology*. W. E. B. Davis, M.D., has had *Obstetrics* added to his chair.

—*Catalogue, 1899-1900.*

<sup>1</sup> One, class of 1900; appeal from Jefferson County Board; one, class of 1878.

<sup>2</sup> Class of 1896.

## STATE EXAMINATION, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Alabama ..... | 10      | 0       | 10     |

## MOBILE.

## MEDICAL DEPARTMENT, ALABAMA UNIVERSITY.

(SEE VOL. IV, p. 468.)

*Graduated in 1900.—42.**Students enrolled 1899-1900.—148.*

—Announcement, 1900-1901.

## STATE EXAMINATION, 1900.

|               | Passed. | Failed.        | Total. |
|---------------|---------|----------------|--------|
| Alabama ..... | 22      | 2 <sup>1</sup> | 24     |

## ALASKA.

The only regulation regarding the practice of medicine is found in Section 460, of the Act of June 6, 1900. It reads:

"That any person or persons, corporation, or company prosecuting or attempting to prosecute any of the following lines of business within the district of Alaska shall first apply for and obtain license so to do from a district court or a subdivision thereof in said district, and pay for said license for the respective lines of business and trade as follows, to wit:

\* \* \*

Physician, itinerant, fifty dollars per annum."

## ARIZONA.

(SEE VOL. III, p. 269.)

*Requirements.*—A diploma in medicine, length of course not specified; and passing an examination before the board of medical examiners. The examination fee is \$5.00.

*Executive Officer of the Board.*—Dr. William Lawrence Woodruff, Secretary, Phoenix.

## EXAMINATIONS, 1900.

| Name of college.                           | Passed. | Failed.        | Total. |
|--------------------------------------------|---------|----------------|--------|
| CALIFORNIA.                                |         |                |        |
| Cooper Medical College .....               | 1       | 1 <sup>2</sup> | 2      |
| COLORADO.                                  |         |                |        |
| Gross Medical College.....                 | 1       | 0              | 1      |
| ILLINOIS.                                  |         |                |        |
| National Medical College and Hospital..... | 1       | 0              | 1      |
| Rush Medical College.....                  | 3       | 0              | 3      |

<sup>1</sup> One, class of 1900; one, date not given.<sup>2</sup> Class 1885.

| Name of college.                                             | Passed.        | Failed. | Total.   |
|--------------------------------------------------------------|----------------|---------|----------|
| <b>LOUISIANA.</b>                                            |                |         |          |
| Tulane University of Louisiana, Medical Department           | 1              | 0       | 1        |
| <b>MASSACHUSETTS.</b>                                        |                |         |          |
| Medical School of Harvard University .....                   | 1              | 0       | 1        |
| <b>MISSOURI.</b>                                             |                |         |          |
| Kansas City Medical College .....                            | 2              | 0       | 2        |
| Barnes Medical College .....                                 | 1              | 0       | 1        |
| Missouri Medical College.....                                | 1              | 0       | 1        |
| St. Louis College of Physicians and Surgeons.....            | 2              | 0       | 2        |
| <b>NEW YORK.</b>                                             |                |         |          |
| University of Buffalo, Medical Department .....              | 1              | 0       | 1        |
| University of the City of New York, Medical Department ..... | 1              | 0       | 1        |
| <b>OHIO.</b>                                                 |                |         |          |
| Cleveland College of Physicians and Surgeons .....           | 1              | 0       | 1        |
| <b>PENNSYLVANIA.</b>                                         |                |         |          |
| Eclectic Medical College of Pennsylvania.....                | 1 <sup>1</sup> | 0       | 1        |
| Hahnemann Medical College and Hospital.....                  | 1              | 2       | 3        |
| <b>JAPAN.</b>                                                |                |         |          |
| Hova Hospital Medical College .....                          | 1              | 0       | 1        |
|                                                              | <hr/> 20       | <hr/> 3 | <hr/> 23 |

## ARKANSAS.

(SEE VOL. II, p. 708.)

The Arkansas law requires registering one's diploma in the office of the county clerk. Non-graduates desiring to practise can do so after passing an examination before a county board of examiners.<sup>2</sup>

## LITTLE ROCK.

### ARKANSAS UNIVERSITY, MEDICAL DEPARTMENT.

(SEE VOL. IV, p. 469.)

*Graduates in 1900.*—8.

*Students enrolled 1899-1900.*—122.

### FACULTY.

*Drop:* J. H. Lenon, M.D., S. H. Kemper, M.D. J. H. Southall, M.D., is now Emeritus and C. Watkins, M.D., is Professor of *Practice of Medicine*. E. R. Dibrell, M.D., has *Physical Diagnosis and Clinical Medicine* added to his chair.

—*Announcement for Session of 1900-1901.*

<sup>1</sup> Class 1868.

<sup>2</sup> On April 4, 1901, the legislature defeated a new medical practice act, copied after that of Wisconsin, thus making no change in the Arkansas law.

## STATE EXAMINATION, 1900.

|             | Passed. | Failed. | Total. |
|-------------|---------|---------|--------|
| Oregon..... | I       | O       | I      |

## CALIFORNIA.

(For present law SEE VOL. II, p. 709.)

California has adopted a new medical practice act, which will take effect August 1, 1901.

The act provides for the appointment of a board of nine medical examiners, five to be elected by the Medical Society of the State of California and two, each, by the California State Homeopathic Medical Society and the Eclectic Medical Society of the State of California. Regular meetings are to be held in San Francisco on the first Tuesdays of April, August, and December. Provision is made for examinations at other times and places. Applicants for examination must possess a diploma from some legally chartered medical school whose requirements are "in no particular less than those prescribed by the Association of American Medical Colleges for that year." Or, a license from some examining body legally constituted to grant licenses to practise. Every applicant, complying with these conditions, must be personally examined in the usual branches of medicine. The examinations are to be in English, in whole or in part in writing. The usual precautions are taken for the examinations in materia medica, therapeutics and practice of medicine. A second examination is given after six months if the applicant fails in the first trial. Provision is made for the acceptance of licenses from those states having equal requirements if the licenses of California are reciprocally accepted.

The fee is \$20.00. A certificate is issued to those who pass which must be registered in the office of the county clerk in which the holder of the certificate is practising. The board is empowered to refuse or to revoke certificates for professional misconduct after a fair trial is given. Penalties are prescribed for practising without registering the certificate, or without obtaining a certificate, or attempting to use a certificate issued to another.

*Executive Officer of the Board.*—The new board has not yet

been organized. Any communication addressed to either of the present secretaries will receive attention. (See Vol. IV, p. 696.)

## LOS ANGELES.

COLLEGE OF MEDICINE, UNIVERSITY OF SOUTHERN CALIFORNIA.

(SEE VOL. IV, p. 469.)

*Graduates in 1900.*—18.

*Students Enrolled 1899-1900.*—

|            |   |   |   |   |   |   |    |
|------------|---|---|---|---|---|---|----|
| Seniors    | - | - | - | - | - | - | 18 |
| Juniors    | - | - | - | - | - | - | 16 |
| Sophomores | - | - | - | - | - | - | 15 |
| Freshmen   | - | - | - | - | - | - | 31 |
| Total      | - | - | - | - | - | - | 80 |

### FACULTY.

Rev. George Cochran, D.D., is *Acting President* in place of G. W. White, A.M., M.D.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed. | Total. |
|--------------------|---------|---------|--------|
| Montana .....      | 2       | 0       | 2      |
| Pennsylvania ..... | 1       | 0       | 1      |

## OAKLAND.

OAKLAND COLLEGE OF MEDICINE AND SURGERY.

This is a newly organized institution. No announcement has been issued up to May 1, 1901.

## SAN FRANCISCO.

CALIFORNIA MEDICAL COLLEGE.

(SEE VOL. IV, p. 471.)

*Graduates in 1900.*—16.

*Students enrolled 1899-1900.*—

|             |   |   |   |   |   |   |    |
|-------------|---|---|---|---|---|---|----|
| Fourth year | - | - | - | - | - | - | 18 |
| Third "     | - | - | - | - | - | - | 8  |
| Second "    | - | - | - | - | - | - | 10 |
| First "     | - | - | - | - | - | - | 10 |
| Total       | - | - | - | - | - | - | 46 |

### FACULTY.

*Drop:* H. T. Webster, M.D., John Fearn, M.D., and C. N. Miller, M.D.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

(None reported.)

## COOPER MEDICAL COLLEGE.

(SEE VOL. IV, p. 472.)

*Graduates in 1900.*—38, of whom 8 had degrees in arts or science.*Students enrolled 1899-1900.*—162, of whom 21 had degrees in arts or science.

## FACULTY.

*Drop:* Chas. E. Farnum, M.D.—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Arizona .....       | 1       | 1 <sup>1</sup> | 2      |
| Idaho .....         | 0       | 1 <sup>2</sup> | 1      |
| Massachusetts ..... | 0       | 1 <sup>3</sup> | 1      |
| New York .....      | 1       | 0              | 1      |
| Oregon .....        | 4       | 0              | 4      |

## HAHNEMANN HOSPITAL COLLEGE OF SAN FRANCISCO.

(SEE VOL. IV, p. 473.)

*Fees.*—

|                                 |   |   |   |   |         |
|---------------------------------|---|---|---|---|---------|
| Matriculation (paid once)       | - | - | - | - | \$ 5.00 |
| Tuition, each year              | - | - | - | - | 75.00   |
| Laboratory fees (Freshman year) | - | - | - | - | 80.00   |

*Graduates in 1900.*—16, of whom one had an academic degree.*Students enrolled.*—Not given in the announcement.

## FACULTY.

*Drop:* Grant Selfridge, M.D., and G. S. Von Wedelstaedt, M.D.*Add:* H. R. Arndt, M.D., *Mental and Nervous Diseases*; A. K. Crawford, M.D., *Diseases of Heart and Lungs*; B. F. Gamber, M.D., *Histology and Hematology*.—*Announcement, 1901.*

## STATE EXAMINATIONS, 1900.

(None reported.)

MEDICAL DEPARTMENT OF THE COLLEGE OF PHYSICIANS AND  
SURGEONS OF SAN FRANCISCO.

(SEE VOL. IV, p. 475.)

<sup>1</sup> Class of 1885.<sup>2</sup> Class of 1889.<sup>3</sup> Class of 1894.

*Graduates in 1900.*—33.

*Students enrolled 1899-1900.*—

|                   |   |   |   |   |   |   |     |
|-------------------|---|---|---|---|---|---|-----|
| Fourth-year class | - | - | - | - | - | - | 44  |
| Third " "         | - | - | - | - | - | - | 37  |
| Second " "        | - | - | - | - | - | - | 34  |
| First " "         | - | - | - | - | - | - | 35  |
| Total             | - | - | - | - | - | - | 150 |

#### FACULTY.

The name of J. R. Laine, M.D., has been dropped and Winslow Anderson, A.M., M.D., M.R.C.P. (Lond.), is now *President*, and D. A. Hodghead, A.M., M.D., is *Dean*.

*Add:* H. D'Arcy Power, L.S.A. (Eng.), L.R.C.P. (Ire.), *Pathology and Pediatrics*.

—*Announcement, 1900-1901.*

#### STATE EXAMINATION, 1900.

|             | Passed. | Failed. | Total. |
|-------------|---------|---------|--------|
| Oregon..... | 1       | 0       | 1      |

#### MEDICAL DEPARTMENT, UNIVERSITY OF CALIFORNIA.

(SEE VOL. IV, p. 476.)

*Entrance Requirements.*—Add to those of last year: *a.* Either Greek, higher English, French or German; *b.* history; *c.* advanced mathematics or a natural science.

*Graduates in 1900.*—30, of whom 9 had academic degrees.

*Students enrolled 1899-1900.*—154, of whom 38 had academic degrees.

—*Annual Announcement, 1900-1901.*

#### STATE EXAMINATIONS, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| New York..... | 1       | 0       | 1      |
| Oregon.....   | 2       | 0       | 2      |

#### COLORADO.

(SEE VOL. II, p. 711.)

Colorado grants a license to practise to graduates of medical schools recognized by the board as in good standing; all others must pass an examination before the board.

*Executive Officer of the Board.*—Dr. C. K. Fleming, Secretary, Denver.

#### BOULDER.

#### UNIVERSITY OF COLORADO, SCHOOL OF MEDICINE.

(SEE VOL. IV, p. 478.)



**Entrance Requirements.**—"A complete course of study in a recognized high school, or equivalent, is required for admission to the medical school."

**Fees.**—

Tuition each year - - - - - \$50.00

—*Annual Announcement for Session of 1900-1901.*

### STATE EXAMINATIONS, 1900.

|                      | Passed. | Failed. | Total. |
|----------------------|---------|---------|--------|
| North Carolina ..... | 0       | 1       | 1      |
| Oregon .....         | 1       | 0       | 1      |

### DENVER.

#### DENVER HOMEOPATHIC COLLEGE AND HOSPITAL.

(SEE VOL. IV, p. 479.)

**Entrance Requirements.**—Admission by "certificate" remains the same as last year. Those who do not possess the required documentary evidence are referred to the Principal of the Denver Normal and Preparatory School, for an examination in Latin and the subjects mentioned in the last announcement.

**Length of Course.**—Four years, of seven months each.

**Graduates in 1900.**—6.

**Students enrolled 1899-1900.**—37.

#### FACULTY.

**Drop:** J. Wylie Anderson, M.D., Byron A. Wheeler, M.D., Joseph C. Irvine, M.D.

**Add:** Grant S. Peck, M.D., *Materia Medica*; Joseph B. Kinley, M.D., *Dermatology*. Change John H. Morrow, M.D., *Surgery*.

—*Announcement, 1900-1901.*

### STATE EXAMINATION, 1900.

|              | Passed. | Failed. | Total. |
|--------------|---------|---------|--------|
| Oregon ..... | 1       | 0       | 1      |

#### GROSS MEDICAL COLLEGE, ROCKY MOUNTAIN UNIVERSITY.

**Entrance Requirements.**—Those of the Association of American Medical Colleges.<sup>1</sup>

**Length of Course.**—Four years, of seven months each.

**Fees.**—

Matriculation, each year - - - - - \$ 5.00

<sup>1</sup> Vol. IV, p. 455.

|                      |   |   |   |   |   |                    |
|----------------------|---|---|---|---|---|--------------------|
| Tuition, each year - | - | - | - | - | - | 75.00 <sup>1</sup> |
| Laboratory, each -   | - | - | - | - | - | 5.00               |

Graduates in 1900.—22.

Students enrolled 1890-1900.—

|              |   |   |   |   |   |     |
|--------------|---|---|---|---|---|-----|
| Seniors -    | - | - | - | - | - | 23  |
| Juniors -    | - | - | - | - | - | 18  |
| Sophomores - | - | - | - | - | - | 18  |
| Freshmen -   | - | - | - | - | - | 47  |
| Total -      | - | - | - | - | - | 106 |

#### FACULTY.

|                                                                                                 |                                                                                  |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| W. H. Buchtel, M.D., LL.D.<br>( <i>Emeritus</i> ) <i>Obstetrics and Clinical Midwifery.</i>     | E. C. Hill, M.Sc., M.D.<br><i>Chemistry, Urinary Analysis and Toxicology.</i>    |
| G. F. Wright, M.D.<br>( <i>Emeritus</i> ) <i>Orthopedic Surgery.</i>                            | H. G. Harvey, A.B., M.D.<br><i>Surgical Anatomy, Fractures and Dislocations.</i> |
| R. F. Lemond, A.M., M.D.<br>( <i>Emeritus</i> ) <i>Ophthalmology and Otol-ogy.</i>              | Moses Kleiner, M.D.<br><i>Therapeutics.</i>                                      |
| T. H. Hawkins, A.M., M.D., LL.D.,<br>Dean.<br><i>Clinical Gynecology and Abdominal Surgery.</i> | T. M. Burns, M.D.<br><i>Obstetrics and Clinical Midwifery.</i>                   |
| Robert Levy, M.D., Secretary.<br><i>Laryngology, Rhinology and Otol-ogy.</i>                    | C. B. Van Zant, M.D.<br><i>Physiology.</i>                                       |
| W. H. Davis, M.D.<br><i>Dermatology and Venereal Diseases.</i>                                  | G. M. Black, M.D.<br><i>Ophthalmology.</i>                                       |
| W. J. Rothwell, M.D.<br><i>Medicine.</i>                                                        | J. M. Blaine, M.D.<br><i>Dermatology and Venereal Dis-eases.</i>                 |
| C. K. Fleming, M.D.<br><i>Gynecology, Abdominal Surgery and Clinical Midwifery.</i>             | D. H. Coover, M.D.<br><i>Ophthalmology.</i>                                      |
| Leonard Freeman, B.S., M.D.<br><i>Surgery.</i>                                                  | J. W. Higgins, M.D.<br><i>Clinical Pediatrics.</i>                               |
| Clayton Parkhill, M.D.<br><i>Surgery.</i>                                                       | J. H. Pershing, Esq.<br><i>Medical Jurisprudence.</i>                            |
| J. N. Hall, B.S., M.D.<br><i>Medicine.</i>                                                      | H. W. Rover, M.D.<br><i>Materia Medica.</i>                                      |
| C. F. Shollenberger, M.D.<br><i>Pediatrics.</i>                                                 | Philip Hillkowitz, B.S., M.D.<br><i>Histology.</i>                               |
| J. W. Exline, M.D.<br><i>Hygiene and State Medicine.</i>                                        | H. E. Warren, M.D.<br><i>Anatomy.</i>                                            |

#### OTHER INSTRUCTORS.

*Mental and Nervous Diseases*, S. D. Hopkins, M.D.; *Medicine*, G. E.

<sup>1</sup> Students taking the four years at this college, pay but \$30.00 tuition fee, for the senior year.

Tyler, B.S., M.D.; *Pharmacology*, G. B. Crews, M.D.; *Electrotherapeutics*, G. H. Stover, M.D.; *Surgery*, A. H. Williams, M.D., S. T. Brown, M.D.; *Pathology and Bacteriology*, Philip Hillkowitz, B.S., M.D.; *Experimental Therapeutics*, J. A. Lambert, Ph.G., M.D.; *Laryngology*, Lenora B. Hamly, M.D., John A. Allen, M.D.; *Gynecology*, Flora M. Kindig, M.D., D. D. Thornton, M.D.; *Ophthalmology*, Emma J. Keen, M.D.; *Neurology*, Bernard Oettinger, M.D.; *Anatomy*, John S. Miller, M.D.

—*Circular of Information, 1900-1901.*

### STATE EXAMINATIONS, 1900.

|                 | Passed. | Failed.        | Total. |
|-----------------|---------|----------------|--------|
| Arizona .....   | 1       | 0              | 1      |
| Louisiana ..... | 1       | 0              | 1      |
| Montana .....   | 1       | 1 <sup>1</sup> | 2      |
| New York .....  | 0       | 1 <sup>2</sup> | 1      |

### UNIVERSITY OF DENVER, SCHOOL OF MEDICINE.

(SEE VOL. IV, p. 481.)

*Length of Course.*—Four years, eight months each.

*Graduates in 1900.*—9.

*Students enrolled 1899-1900.*—52.

### FACULTY.

*Drop:* William F. McDowell, S.T.D., Edwin R. Artell, M.D., William H. Bergtold, M.Sc., M.D.

*Add:* Henry A. Buchtel, A.M., D.D., *Chancellor.*

—*Twentieth Annual Bulletin.*

### STATE EXAMINATIONS, 1900.

|                | Passed. | Failed. | Total. |
|----------------|---------|---------|--------|
| Idaho .....    | 1       | 0       | 1      |
| Illinois ..... | 2       | 0       | 2      |
| New York ..... | 1       | 0       | 1      |

### CONNECTICUT.

(SEE VOL. III, p. 273.)

Connecticut will issue a license to any one who is able to pass an examination before any one of three committees appointed severally by the Connecticut Medical Society, the Connecticut Medical Association, and the Eclectic Medical Association. These committees are independent of each other, prepare their own questions, and do their own marking. The results are reported to the state board of health, which issues a certificate of registration.

<sup>1</sup> Class of 1896.

<sup>2</sup> Class of 1895.

*Executive Officer of the Board.*—Dr. C. A. Lindsley, the secretary of the state board of health, will supply any detailed information.

| Name of college.                                                    | Passed. | Failed.        | Total. |
|---------------------------------------------------------------------|---------|----------------|--------|
| <b>CONNECTICUT.</b>                                                 |         |                |        |
| Yale University, Medical Department .....                           | 8       | 0              | 8      |
| <b>DISTRICT OF COLUMBIA.</b>                                        |         |                |        |
| Howard University, Medical Department .....                         | 0       | 1              | 1      |
| <b>MARYLAND.</b>                                                    |         |                |        |
| Baltimore Medical College .....                                     | 2       | 2              | 4      |
| Baltimore University School of Medicine .....                       | 0       | 1              | 1      |
| College of Physicians and Surgeons .....                            | 0       | 2              | 2      |
| Johns Hopkins University, Medical Department....                    | 3       | 0              | 3      |
| <b>MICHIGAN.</b>                                                    |         |                |        |
| University of Michigan, Department of Medicine<br>and Surgery ..... | 1       | 0              | 1      |
| <b>NEW HAMPSHIRE.</b>                                               |         |                |        |
| Dartmouth College, Medical School .....                             | 2       | 0              | 2      |
| <b>NEW YORK.</b>                                                    |         |                |        |
| Albany Medical College .....                                        | 2       | 0              | 2      |
| Long Island College Hospital .....                                  | 1       | 0              | 1      |
| Bellevue Hospital Medical College .....                             | 1       | 0              | 1      |
| College of Physicians and Surgeons (Columbia) ...                   | 3       | 2              | 5      |
| Cornell University Medical College .....                            | 2       | 0              | 2      |
| University of the City of New York, Medical Department .....        | 1       | 0              | 1      |
| <b>PENNSYLVANIA.</b>                                                |         |                |        |
| University of Pennsylvania, Medical Department ..                   | 2       | 0              | 2      |
| Jefferson Medical College .....                                     | 3       | 1              | 4      |
| Woman's Medical College of Pennsylvania .....                       | 1       | 0              | 1      |
| Medico-Chirurgical College of Philadelphia .....                    | 1       | 0              | 1      |
| <b>VERMONT.</b>                                                     |         |                |        |
| Medical Department, University of Vermont .....                     | 4       | 0              | 4      |
| <b>VIRGINIA.</b>                                                    |         |                |        |
| Medical Department, University of Virginia .....                    | 1       | 0              | 1      |
| <b>CANADA.</b>                                                      |         |                |        |
| Laval University, Medical Department .....                          | 0       | 1              | 1      |
| Trinity Medical College .....                                       | 1       | 0              | 1      |
| <b>FOREIGN.</b>                                                     |         |                |        |
| French Diploma .....                                                | 1       | 0              | 1      |
| German Diploma (Dresden) .....                                      | 0       | 1              | 1      |
| Colleges not Specified <sup>1</sup> .....                           | 15      | 9 <sup>2</sup> | 24     |
| Non-graduates .....                                                 | 1       | 3              | 4      |
|                                                                     | 56      | 23             | 79     |

<sup>1</sup> Examinations before the Homeopathic and Eclectic Committees, from whom no replies to letters of inquiry were received. The figures are taken from the Report of the State Board of Health.

<sup>2</sup> Including two who were "Conditioned."

YALE MEDICAL SCHOOL, DEPARTMENT OF MEDICINE, YALE UNIVERSITY.

(SEE VOL. IV, p. 483.)

*Entrance Requirements.*—Add the principles of rhetoric to the requirement in *English*. For the Session 1902-1903 there will be a marked increase in requirements entitling to matriculation.

*Graduates in 1900.*—24, of whom 7 had academic degrees.

*Students enrolled 1900-1901.*—

|                             | Number. | Academic degrees. |
|-----------------------------|---------|-------------------|
| Senior class - - - - -      | 19      | 3                 |
| Junior class - - - - -      | 27      | 9                 |
| Second-year class - - - - - | 38      | 12                |
| First-year class - - - - -  | 47      | 1                 |
| Special students - - - - -  | 2       | 1                 |
| Total - - - - -             | 133     | 26                |

FACULTY.

*Drop:* Moses C. White, M.D., Benjamin Moore, M.A.

*Add:* R. H. Chittenden, Ph.D., *Physiology*; O. G. Ramsay, M.D., *Obstetrics and Gynecology*.

—*Catalogue, 1900-1901.*

STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| Connecticut .....   | 8       | 0       | 8      |
| Maryland .....      | 1       | 0       | 1      |
| Massachusetts ..... | 6       | 0       | 6      |
| New York.....       | 6       | 0       | 6      |

DELAWARE.

(SEE VOL. II, p. 717.)

Graduates of medicine having a competent common school education and four years of medical study, as interpreted by the medical council, are eligible for an examination before one of two boards of medical examiners for examination for licensure.

Holders of licenses from other states upon satisfying the board that the standard of requirements is substantially the same may have a Delaware license granted them upon payment of a fee of \$50.00.

*Executive Officer of the Board.*—Dr. P. W. Tomlinson, Secretary of the Medical Council, Wilmington.

## EXAMINATIONS, 1900.

| Name of college.                                 | Passed.   | Failed.        | Total.    |
|--------------------------------------------------|-----------|----------------|-----------|
| <b>DISTRICT OF COLUMBIA.</b>                     |           |                |           |
| Georgetown University, School of Medicine.....   | 1         | 0              | 1         |
| <b>MARYLAND.</b>                                 |           |                |           |
| Baltimore University School of Medicine.....     | 2         | 1 <sup>1</sup> | 3         |
| University of Maryland School, of Medicine.....  | 2         | 0              | 2         |
| <b>NEW HAMPSHIRE.</b>                            |           |                |           |
| Dartmouth College, Medical School.....           | 1         | 0              | 1         |
| <b>PENNSYLVANIA.</b>                             |           |                |           |
| University of Pennsylvania, Medical Department.. | 3         | 0              | 3         |
| Jefferson Medical College.....                   | 3         | 0              | 3         |
| Medico-Chirurgical College of Philadelphia.....  | 2         | 0              | 2         |
| <b>VIRGINIA.</b>                                 |           |                |           |
| Medical Department, University of Virginia.....  | 1         | 0              | 1         |
|                                                  | <u>15</u> | <u>1</u>       | <u>16</u> |

## DISTRICT OF COLUMBIA.

(SEE VOL. II, p. 718.)

A graduate in medicine, after a course satisfactory to the board of medical supervisors—requiring four years' study, if the diploma was issued after June 30, 1898, is eligible to appear before one of three boards of medical examiners for examination for licensure. Holders of licenses from other states can register their licenses in the District, provided the standard of requirements of the licensing body is equivalent to that of the District, and provided further the licensing body will reciprocally accept the licenses of the board of medical supervisors.

*Executive Officer of the Board.*—Dr. W. C. Woodward, Secretary, Health Department, Washington.

## EXAMINATIONS, 1900.

| Name of college.                               | Passed. | Failed.        | Total. |
|------------------------------------------------|---------|----------------|--------|
| <b>DISTRICT OF COLUMBIA.</b>                   |         |                |        |
| Columbian University, Medical School .....     | 19      | 4 <sup>2</sup> | 23     |
| National University, Medical Department .....  | 1       | 5              | 6      |
| Georgetown University, School of Medicine..... | 7       | 3 <sup>2</sup> | 10     |
| Howard University, Medical Department.....     | 3       | 1              | 4      |

<sup>1</sup> Class of 1898.<sup>2</sup> One, class of 1899.

|               | Name of college.                                                 | Passed. | Failed.        | Total. |
|---------------|------------------------------------------------------------------|---------|----------------|--------|
| IOWA.         |                                                                  |         |                |        |
|               | College of Physicians and Surgeons of Keokuk.....                | 0       | 1 <sup>1</sup> | 1      |
| KENTUCKY.     |                                                                  |         |                |        |
|               | Hospital College of Medicine .....                               | 1       | 0              | 1      |
| LOUISIANA.    |                                                                  |         |                |        |
|               | Tulane University of Louisiana, Medical Department               | 1       | 0              | 1      |
| MARYLAND.     |                                                                  |         |                |        |
|               | University of Maryland, School of Medicine .....                 | 0       | 1 <sup>2</sup> | 1      |
| MICHIGAN.     |                                                                  |         |                |        |
|               | University of Michigan, Department of Medicine and Surgery ..... | 1       | 0              | 1      |
| NEW YORK.     |                                                                  |         |                |        |
|               | Bellevue Hospital Medical College .....                          | 1       | 0              | 1      |
|               | College of Physicians and Surgeons (Columbia)....                | 2       | 0              | 2      |
|               | New York Homeopathic Medical College and Hospital .....          | 1       | 0              | 1      |
| PENNSYLVANIA. |                                                                  |         |                |        |
|               | University of Pennsylvania, Medical Department ..                | 2       | 0              | 2      |
|               | Hahnemann Medical College and Hospital .....                     | 1       | 1 <sup>3</sup> | 2      |
| VIRGINIA.     |                                                                  |         |                |        |
|               | Medical Department, University of Virginia .....                 | 3       | 0              | 3      |
|               |                                                                  | 43      | 16             | 59     |

## COLUMBIAN UNIVERSITY, THE MEDICAL SCHOOL.

(SEE VOL. IV, p. 484.)

*Graduates in 1900.—33.**Students enrolled 1899-1900.—*

|                  |   |   |   |   |   |   |   |     |
|------------------|---|---|---|---|---|---|---|-----|
| First year       | - | - | - | - | - | - | - | 66  |
| Second year      | - | - | - | - | - | - | - | 52  |
| Third "          | - | - | - | - | - | - | - | 32  |
| Fourth "         | - | - | - | - | - | - | - | 59  |
| Special students | - | - | - | - | - | - | - | 4   |
| Total            | - | - | - | - | - | - | - | 213 |

## FACULTY.

Rev. B. L. Whitman, D.D., has resigned the presidency and Rev. S. H. Greene, D.D., L.L.D., is president *pro tempore*.

*Drop:* D. W. Prentiss, M.D. Sterling Ruffin, M.D., has been transferred to the chair of *Materia Medica and Therapeutics*, and that of *Medical Jurisprudence* is vacant.

—Announcement, 1900-1901.

<sup>1</sup> Class of 1875.<sup>2</sup> Class of 1865.<sup>3</sup> Class of 1892.

## STATE EXAMINATIONS, 1900.

|                            | Passed. | Failed.        | Total. |
|----------------------------|---------|----------------|--------|
| District of Columbia ..... | 19      | 4 <sup>1</sup> | 23     |
| New York.....              | 1       | 0              | 1      |
| North Carolina .....       | 1       | 0              | 1      |
| Pennsylvania .....         | 1       | 0              | 1      |
| Virginia.....              | 2       | 0              | 2      |

## GEORGETOWN UNIVERSITY, SCHOOL OF MEDICINE.

(SEE VOL. IV, p. 486.)

*Graduates in 1900.*—21, of whom 6 had academic degrees.*Students enrolled 1899-1900.*—104, of whom 19 had academic degrees.

## FACULTY.

*Drop:* H. D. Fry, M.D., J. J. Kinyoun, M.D., Ph.D., A. H. Witmer, M.D.*Add:* E. B. Behrend, A.B., M.D., *Pathology and Bacteriology*; A. B. Richardson, M.D., *Mental and Nervous Diseases*; T. F. Mallan, M.D., *Clinical Surgery*.—*Circular of Information, 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                            | Passed. | Failed.        | Total. |
|----------------------------|---------|----------------|--------|
| Delaware .....             | 1       | 0              | 1      |
| District of Columbia ..... | 7       | 3 <sup>1</sup> | 10     |
| Illinois.....              | 1       | 0              | 1      |
| Iowa .....                 | 1       | 0              | 1      |
| Maryland.....              | 2       | 0              | 2      |
| Massachusetts .....        | 1       | 0              | 1      |
| New Jersey .....           | 1       | 0              | 1      |
| New York.....              | 1       | 0              | 1      |
| North Carolina .....       | 0       | 1              | 1      |
| Virginia.....              | 1       | 1              | 2      |

## HOWARD UNIVERSITY, MEDICAL DEPARTMENT.

(SEE VOL. IV, p. 488.)

*Length of Course.*—Four years, of seven months each.*Graduates in 1900.*—18, of whom 5 had academic degrees.*Students enrolled 1899-1900.*—

|             |   |   |   |   |   | Number. | Academic degrees. |
|-------------|---|---|---|---|---|---------|-------------------|
| Fourth year | - | - | - | - | - | 20      | 5                 |
| Third "     | - | - | - | - | - | 24      | 3                 |
| Second "    | - | - | - | - | - | 39      | 6                 |
| First "     | - | - | - | - | - | 43      | 7                 |
| Total       | - | - | - | - | - | 126     | 21                |

<sup>1</sup> One, class of 1899.



## FACULTY.

*Drop:* T. B. Hood, A.M., M.D.

*Add "Dean" to Robert Reyburn, A.M., M.D.*

—33rd Annual Announcement for Session of 1900-1901.

## STATE EXAMINATIONS, 1900.

|                           | Passed. | Failed.        | Total. |
|---------------------------|---------|----------------|--------|
| Alabama .....             | 0       | 1 <sup>1</sup> | 1      |
| Connecticut .....         | 0       | 1              | 1      |
| District of Columbia..... | 3       | 1              | 4      |
| Maryland .....            | 2       | 0              | 2      |
| New Jersey.....           | 2       | 1 <sup>2</sup> | 3      |
| Pennsylvania.....         | 1       | 0              | 1      |
| Virginia.....             | 1       | 0              | 1      |

## NATIONAL UNIVERSITY, MEDICAL DEPARTMENT.

(SEE VOL. IV, p. 485.)

*Graduates in 1900.*—6.

*Students enrolled 1899-1900.*—

|              |   |   |   |   |   |   |   |    |
|--------------|---|---|---|---|---|---|---|----|
| Seniors -    | - | - | - | - | - | - | - | 10 |
| Juniors -    | - | - | - | - | - | - | - | 9  |
| Sophomores - | - | - | - | - | - | - | - | 9  |
| Freshmen -   | - | - | - | - | - | - | - | 2  |
| Total -      | - | - | - | - | - | - | - | 30 |

## FACULTY.

*Drop:* Wm. P. Compton, M.D., and Chas. K. Koonce, M.D.

*Add:* F. H. Miner, M.D., *Anesthetics and Clinical Surgery*; G. C. Clark, M.D., *Clinical Dermatology and Genito-urinary Diseases*; J. C. De Vries, M.D., *Pathology*; Jesse Shoup, M.D., *Laryngology, Rhinology and Otology*.

—Catalogue, 1900-1901.

## STATE EXAMINATIONS, 1900.

|                           | Passed. | Failed. | Total. |
|---------------------------|---------|---------|--------|
| District of Columbia..... | 1       | 5       | 6      |
| New Hampshire.....        | 1       | 0       | 1      |
| New Jersey.....           | 1       | 0       | 1      |

## FLORIDA.

The law in Florida requires passing an examination before one of the nine boards—one for each of the seven judicial districts, and one board each for the homeopaths and eclectics. The following, taken from the minutes of the Florida Medi-

<sup>1</sup> Class of 1897—2d examination.

<sup>2</sup> 4th examination.

cal Association, shows the actual working of the law and explains why no replies have been received to letters seeking for information.

The item of business under discussion is "Reports from District Examining Boards." Dr. R. L. Haines, of Orlando, secretary of the board of the seventh district, made the following verbal report :

As secretary of one of these boards—that of the seventh circuit—I might say that we are now having comparatively few applicants. We have examined about 10 this past year, of which number we rejected three or four. There have been quite a number of temporary licenses issued, from many of which we never heard again. In this connection I might mention that only recently I had a letter from a man in Kissimmee asking for a license. He had never attended school and had no diploma. I merely wrote him to drop the whole business. He has, however, procured a license from a board at Jacksonville—but I see Dr. Hicks, of Kissimmee, here and he can inform you about this.

Dr. Hicks :

Yes, he went to Jacksonville, got a license and is now practising.

Dr. J. H. Durkee, of Jacksonville, as a representative of the board for the fourth district, likewise made an oral report.

As secretary of the board of the fourth district, which has recently been reorganized, I can make a short report. On the appointment of Dr. Mitchell and myself, by the governor, we formally organized, Dr. Mitchell being chosen president and myself secretary. The third member is Dr. F. D. Miller. We have examined seven men and turned down four. We have something we would like to bring before the Society, and that is section 808, in regard to temporary certificates. We have found that quite a number of men had temporary certificates without having had any examination whatever. There was one instance of a man who went before the board at Quincy and procured a temporary certificate and then came to Jacksonville to practise. After some correspondence, they kindly withdrew their temporary license and he came before our board and failed in an examination. It took us quite a little time to bring this thing to a head, but we succeeded and he has finally left the state. He said he had practised in Florida in 1896 under a temporary license. The law makes no mention of more than one temporary certificate, and I think but one should be issued and a proper record kept of it. I know when I became a member of our board there was no record kept of temporary licenses, but we keep track of all we issue and see that the parties come up when the license expires—the date of the next regular meeting. \* \* \*

I have been reliably informed that some of the district boards ask only

three questions. Three questions to cover seven subjects! I think we should have a uniform written examination, the papers to be on file so that if any complications come up they can be referred to the record. \* \* \*

## GEORGIA.

(SEE VOL. II, p. 721.)

Graduates in medicine, who have attended three full courses of study, of not less than six months each, may appear before one of three boards of medical examiners, for an examination. Those who pass are required to record their certificates. Each board, in Georgia, acts independently of the other, both in questions and markings.

*Executive Officers of the Boards.*—The secretaries are: Drs. J. B. S. Holmes, R. E. Hinman (homeopathic board), and M. T. Salter (eclectic board), all of Atlanta.

### EXAMINATIONS, 1900.<sup>1</sup>

| Name of college.                                        | Passed. | Failed. | Total. |
|---------------------------------------------------------|---------|---------|--------|
| <b>GEORGIA.</b>                                         |         |         |        |
| Georgia College of Eclectic Medicine and Surgery . . .  | 21      | 0       | 21     |
| <b>ILLINOIS.</b>                                        |         |         |        |
| Hahnemann Medical College and Hospital of Chicago . . . | 1       | 0       | 1      |
| <b>OHIO.</b>                                            |         |         |        |
| Eclectic Medical Institute . . . . .                    | 1       | 0       | 1      |
| <b>TENNESSEE.</b>                                       |         |         |        |
| University of the South, Medical Department . . . . .   | 1       | 0       | 1      |
|                                                         | 24      | 0       | 24     |

## ATLANTA.

### ATLANTA COLLEGE OF PHYSICIANS AND SURGEONS.

(SEE VOL. IV, p. 489.)

*Graduates in 1900.*—71.

*Students enrolled 1899-1900.*—260.

#### FACULTY.

*Add: Dr. H. F. Harris, Pathology, Bacteriology and Pathologic Anatomy.*  
—*Announcement for Session of 1900-1901.*

### STATE EXAMINATIONS, 1900.

|                          | Passed. | Failed. | Total. |
|--------------------------|---------|---------|--------|
| Alabama . . . . .        | 0       | 1       | 1      |
| Maine . . . . .          | 1       | 0       | 1      |
| North Carolina . . . . . | 2       | 2       | 4      |
| South Carolina . . . . . | 0       | 1       | 1      |

<sup>1</sup> The reports of but two of the boards have been received when the form was sent to press. It is hoped the remaining report will be received to be placed in an appendix.

**GEORGIA COLLEGE OF ECLECTIC MEDICINE AND SURGERY.**

(SEE VOL. IV, p. 490.)

*Graduates in 1900.*—22.

*Students enrolled 1899-1900.*—54.

**FACULTY.**

*Drop:* B. L. Simmons, M.D.

*Add:* A. A. Higga, M.D., *Theory and Practice of Medicine*, and Giles Hathcock, M.D., *Materia Medica and Therapeutics*.

—*Announcement, 1900-1901.*

**STATE EXAMINATIONS, 1900.**

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Alabama ..... | 2       | 0       | 2      |
| Georgia ..... | 21      | 0       | 21     |

**AUGUSTA.**

**MEDICAL COLLEGE OF GEORGIA. (UNIVERSITY OF GEORGIA, MEDICAL DEPARTMENT.)**

(SEE VOL. IV, p. 654.)

*Graduates in* —.Not given in the announcement.

*Students enrolled* —.Not given in the announcement.

**FACULTY.**

Walter B. Hill, A.M., is now *Chancellor* in place of William E. Boggs, D.D., LL.D.

—*Announcement for 1900-1901.*

**STATE EXAMINATIONS, 1900.**

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Alabama .....       | 1       | 0              | 1      |
| North Carolina..... | 0       | 1 <sup>1</sup> | 1      |
| South Carolina..... | 5       | 1 <sup>1</sup> | 6      |

**IDAHO.**

(SEE VOL. IV, p. 703.)

Idaho permits the graduates from a reputable college of medicine in good standing to take the examination for license before its board of medical examiners. There is no provision permitting the registration of a license from another board.

*Executive Officer of the Board.*—Dr. R. L. Nourse, secretary, Hailey.

**EXAMINATIONS, 1900.**

| Name of college.            | Passed. | Failed.        | Total. |
|-----------------------------|---------|----------------|--------|
| CALIFORNIA.                 |         |                |        |
| Cooper Medical College..... | 0       | 1 <sup>1</sup> | 1      |

<sup>1</sup> Class of 1890.

<sup>2</sup> Class of 1889.

|                      | Name of college.                                  | Passed. | Failed.        | Total. |
|----------------------|---------------------------------------------------|---------|----------------|--------|
| <b>COLORADO.</b>     |                                                   |         |                |        |
|                      | University of Denver, School of Medicine.....     | 1       | 0              | 1      |
| <b>ILLINOIS.</b>     |                                                   |         |                |        |
|                      | College of Physicians and Surgeons.....           | 1       | 0              | 1      |
|                      | Northwestern University, Woman's Medical School.. | 1       | 0              | 1      |
|                      | Rush Medical College.....                         | 1       | 2 <sup>1</sup> | 3      |
|                      | American Medical Missionary College.....          | 2       | 0              | 2      |
| <b>IOWA.</b>         |                                                   |         |                |        |
|                      | College of Physicians and Surgeons of Keokuk....  | 1       | 0              | 1      |
| <b>MISSOURI.</b>     |                                                   |         |                |        |
|                      | University Medical College.....                   | 3       | 0              | 3      |
|                      | Kansas City Homeopathic Medical College.....      | 0       | 1 <sup>2</sup> | 1      |
| <b>NEW YORK.</b>     |                                                   |         |                |        |
|                      | Albany Medical College.....                       | 1       | 1 <sup>3</sup> | 2      |
| <b>OREGON.</b>       |                                                   |         |                |        |
|                      | Medical Department, University of Oregon.....     | 1       | 0              | 1      |
|                      | Medical Department, Willamette University.....    | 1       | 0              | 1      |
| <b>PENNSYLVANIA.</b> |                                                   |         |                |        |
|                      | University of Pennsylvania, Medical Department..  | 1       | 0              | 1      |
|                      | Medico-Chirurgical College of Philadelphia.....   | 1       | 0              | 1      |
| <b>TENNESSEE.</b>    |                                                   |         |                |        |
|                      | University of Tennessee, Medical Department.....  | 1       | 0              | 1      |
| <b>MISSOURI.</b>     |                                                   |         |                |        |
|                      | College of Osteopathy, Kirksville.....            | 0       | 1              | 1      |
|                      |                                                   | 16      | 6              | 22     |

## ILLINOIS.

(SEE VOL. IV, p. 711.)

An examination by the state board of health in those "subjects and topics, a knowledge of which is commonly and generally required of candidates for the degree of doctor of medicine by reputable medical colleges in the United States," by graduates of a medical institution in good standing, as determined by the board.

*Executive Officer of the Board.*—Dr. J. A. Egan, secretary, Springfield.

## EXAMINATIONS, 1900.

|                  | Name of college.                              | Passed. | Failed. | Total. |
|------------------|-----------------------------------------------|---------|---------|--------|
| <b>COLORADO.</b> |                                               |         |         |        |
|                  | University of Denver, School of Medicine..... | 2       | 0       | 2      |

<sup>1</sup> One each, classes 1879, 1881.<sup>2</sup> Class of 1894.<sup>3</sup> Class of 1867.

| Name of college.                                                   | Passed. | Failed. | Total |
|--------------------------------------------------------------------|---------|---------|-------|
| <b>DISTRICT OF COLUMBIA.</b>                                       |         |         |       |
| Georgetown University, School of Medicine .....                    | 1       | 0       | 1     |
| <b>ILLINOIS.</b>                                                   |         |         |       |
| College of Physicians and Surgeons.....                            | 48      | 0       | 48    |
| Northwestern University Medical School .....                       | 42      | 0       | 42    |
| Northwestern University, Woman's Medical School                    | 10      | 0       | 10    |
| Rush Medical College.....                                          | 93      | 1       | 94    |
| Chicago Homeopathic Medical College .....                          | 16      | 0       | 16    |
| Hahnemann Medical College and Hospital of Chi-<br>cago .....       | 20      | 0       | 20    |
| Bennett College of Eclectic Medicine and Surgery.                  | 5       | 0       | 5     |
| American Medical Missionary College.....                           | 6       | 0       | 6     |
| College of Medicine and Surgery.....                               | 4       | 0       | 4     |
| Dunham Medical College.....                                        | 3       | 0       | 3     |
| Harvey Medical College.....                                        | 7       | 0       | 7     |
| Hering Medical College .....                                       | 4       | 0       | 4     |
| Illinois Medical College .....                                     | 5       | 1       | 6     |
| Jenner Medical College.....                                        | 9       | 0       | 9     |
| <b>INDIANA.</b>                                                    |         |         |       |
| Central College of Physicians and Surgeons.....                    | 1       | 0       | 1     |
| Medical College of Indiana .....                                   | 1       | 0       | 1     |
| <b>IOWA.</b>                                                       |         |         |       |
| Keokuk Medical College .....                                       | 4       | 0       | 4     |
| College of Physicians and Surgeons of Keokuk ....                  | 1       | 0       | 1     |
| <b>KENTUCKY.</b>                                                   |         |         |       |
| Hospital College of Medicine .....                                 | 4       | 0       | 4     |
| Kentucky School of Medicine .....                                  | 1       | 0       | 1     |
| Louisville Medical College.....                                    | 3       | 0       | 3     |
| University of Louisville, Medical Department.....                  | 4       | 0       | 4     |
| <b>MARYLAND.</b>                                                   |         |         |       |
| Baltimore Medical College.....                                     | 1       | 0       | 1     |
| Baltimore University School of Medicine .....                      | 2       | 0       | 2     |
| <b>MASSACHUSETTS.</b>                                              |         |         |       |
| Medical School of Harvard University.....                          | 1       | 0       | 1     |
| Tufts College Medical School.....                                  | 1       | 0       | 1     |
| <b>MICHIGAN.</b>                                                   |         |         |       |
| University of Michigan, Department of Medicine<br>and Surgery..... | 4       | 0       | 4     |
| Homeopathic Medical College of the University of<br>Michigan.....  | 1       | 0       | 1     |
| Detroit College of Medicine.....                                   | 0       | 1       | 1     |
| <b>MISSOURI.</b>                                                   |         |         |       |
| Kansas City Medical College .....                                  | 1       | 0       | 1     |
| College of Homeopathic Medicine and Surgery ....                   | 1       | 0       | 1     |

| Name of college.                                          | Passed. | Failed. | Total. |
|-----------------------------------------------------------|---------|---------|--------|
| Barnes Medical College .....                              | 9       | 2       | 11     |
| Marion-Sims College of Medicine .....                     | 5       | 0       | 5      |
| St. Louis College of Physicians and Surgeons.....         | 3       | 0       | 3      |
| Washington University, Medical Department .....           | 3       | 0       | 3      |
| Homeopathic Medical College of Missouri .....             | 1       | 0       | 1      |
| <b>NEBRASKA.</b>                                          |         |         |        |
| John A. Creighton Medical College .....                   | 1       | 0       | 1      |
| <b>NEW YORK.</b>                                          |         |         |        |
| Niagara University, Medical Department .....              | 1       | 0       | 1      |
| Bellevue Hospital Medical College .....                   | 1       | 0       | 1      |
| The University and Bellevue Hospital Medical College..... | 1       | 0       | 1      |
| New York Homeopathic Medical College and Hospital .....   | 1       | 0       | 1      |
| <b>OHIO.</b>                                              |         |         |        |
| Cincinnati College of Medicine and Surgery .....          | 1       | 0       | 1      |
| Medical College of Ohio.....                              | 2       | 1       | 3      |
| Eclectic Medical Institute .....                          | 2       | 0       | 2      |
| Medical College of Western Reserve University ....        | 2       | 0       | 2      |
| Starling Medical College .....                            | 1       | 0       | 1      |
| <b>PENNSYLVANIA.</b>                                      |         |         |        |
| Jefferson Medical College.....                            | 2       | 1       | 3      |
| Medico-Chirurgical College of Philadelphia.....           | 2       | 0       | 2      |
| Hahnemann Medical College and Hospital .....              | 2       | 0       | 2      |
| <b>VIRGINIA.</b>                                          |         |         |        |
| Medical Department, University of Virginia .....          | 2       | 0       | 2      |
| <b>WISCONSIN.</b>                                         |         |         |        |
| Milwaukee Medical College.....                            | 1       | 0       | 1      |
| <b>CANADA.</b>                                            |         |         |        |
| McGill University, Medical Department.....                | 1       | 0       | 1      |
| Queen's College, Faculty of Medicine .....                | 1       | 0       | 1      |
| Trinity Medical College .....                             | 4       | 0       | 4      |
| Western University, Medical Department.....               | 1       | 0       | 1      |
| <b>FOREIGN.</b>                                           |         |         |        |
| University of Padua.....                                  | 1       | 0       | 1      |
| University of Würzburg .....                              | 1       | 0       | 1      |
|                                                           | 358     | 7       | 365    |

**AMERICAN MEDICAL MISSIONARY COLLEGE.**

(SEE VOL. IV, p. 502.)

*Entrance Requirements.*—Those of the Illinois State Board of Health<sup>1</sup>, and of the Association of American Medical Colleges<sup>2</sup>.

<sup>1</sup> See Vol. IV, p. 715.

<sup>2</sup> See Vol. IV, p. 455.

*Graduates in 1900.*—Not given in the announcement.

*Students enrolled 1899-1900.*—

|                  |   |   |   |   |   |   |     |
|------------------|---|---|---|---|---|---|-----|
| Seniors -        | - | - | - | - | - | - | 23  |
| Juniors -        | - | - | - | - | - | - | 19  |
| Sophomores -     | - | - | - | - | - | - | 29  |
| Freshmen -       | - | - | - | - | - | - | 37  |
| Special students | - | - | - | - | - | - | 6   |
| Total            | - | - | - | - | - | - | 114 |

—*Sixth Annual Announcement, 1900-1901.*

### STATE EXAMINATIONS, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Idaho.....    | 2       | 0       | 2      |
| Illinois..... | 6       | 0       | 6      |
| Iowa.....     | 1       | 0       | 1      |
| Oregon.....   | 1       | 0       | 1      |

**BENNETT COLLEGE OF ECLECTIC MEDICINE AND SURGERY.**

(SEE VOL. IV, p. 501.)

*Graduates in 1900.*—18.

*Students enrolled 1899-1900.*—101.

#### FACULTY.

*Drop:* J. V. Stevens, M.D., W. E. Kinnett, M.D., A. J. Weaver, M.D., and C. F. Engels, M.D.

*Add:* J. A. Jennings, M.D., *Hygiene.* E. G. Trowbridge, M.D., has been transferred to the chair of *Ophthalmology and Otology.*

—*Announcement, 1900-1901.*

### STATE EXAMINATIONS, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Illinois..... | 5       | 0       | 5      |
| Iowa.....     | 1       | 0       | 1      |

**THE CHICAGO HOMEOPATHIC MEDICAL COLLEGE.**

(SEE VOL. IV, p. 498.)

*Graduates in 1900.*—36, of whom 7 had academic degrees.

*Students enrolled 1899-1900.*—162, of whom 8 had academic degrees.

#### FACULTY.

*Drop:* Leonard Pratt, M.D., J. E. Hetherington, M.D.

*Add:* (*Emeritus*) to R. N. Foster, A.M., M.D. J. H. Buffum should be J. H. Buffum.

—*25th Annual Announcement, Session of 1900-1901.*



## STATE EXAMINATIONS, 1900.

|                   | Passed. | Failed.        | Total. |
|-------------------|---------|----------------|--------|
| Illinois.....     | 16      | 0              | 16     |
| Iowa .....        | 3       | 0              | 3      |
| Minnesota.....    | 1       | 0              | 1      |
| New York.....     | 3       | 0              | 3      |
| North Dakota..... | 1       | 1 <sup>1</sup> | 2      |
| Virginia.....     | 1       | 0              | 1      |

## COLLEGE OF MEDICINE AND SURGERY.

(SEE VOL. IV, pp. 503-505.)

The Chicago Physio-Medical College has united with the College of Medicine and Surgery.

*Graduates in 1900.*—Not given in the circular of information.

*Students enrolled 1899-1900.*—

|             |   |   |   |   |   |   |    |
|-------------|---|---|---|---|---|---|----|
| Fourth year | - | - | - | - | - | - | 4  |
| Third year  | - | - | - | - | - | - | 15 |
| Second year | - | - | - | - | - | - | 14 |
| First year  | - | - | - | - | - | - | 18 |
| Total       | - | - | - | - | - | - | 51 |

*Fees:*—

|                                       |   |   |   |   |   |         |
|---------------------------------------|---|---|---|---|---|---------|
| Matriculation paid but once           | - | - | - | - | - | \$ 5.00 |
| Tuition each year                     | - | - | - | - | - | 65.00   |
| Anatomy, first and second years, each | - | - | - | - | - | 10.00   |
| Laboratory, each                      | - | - | - | - | - | 5.00    |
| Diploma                               | - | - | - | - | - | 5.00    |

## FACULTY.

*Drop:* W. W. Cook, A.M., M.D., C. E. Bowers, M.D., H. W. Scaife, A.M., M.D., R. V. Wagner, M.D., E. D. Wahl, M.D., and H. T. Smith, D.D.S.

*Add:* H. Paxton Nelson, M.D., *Theory and Practice of Medicine*; R. H. Lawrence, M.D., *Materia Medica and Therapeutics*; Mary E. Jackson, M.D., *Materia Medica and Therapeutics*; H. A. Hadley, M.D., *Operative Surgery and Demonstrative Anatomy*; J. D. Robertson, M.D., *Principles and Practice of Surgery*; R. J. C. Hamilton, M.D., *Laryngology, Rhinology and Otology*; C. P. Geudtner, M.D., *Ophthalmology*; J. C. McCandless, M.D., *Pathology, and Pathologic Anatomy*; M. Elizabeth Stanford, M.D., *Hygiene*; I. J. K. Golden, M.D., *Physical Diagnosis*; C. W. Klinetop, M.D., *Physiology, Histology and Bacteriology*; C. H. Johnston, M.D., *Diseases of Children*; Anton Mueller, M.D., *Dermatology and Toxicology*; J. A. Bishop, B.S., M.S., *Chemistry*; C. L. Stabline, M.D., *Suggestive Therapeutics*; C. DeW. Bates, D.D.S., *Dental Surgery*; W. A. Barclay, M.D., *Gynecology*; Florence G. Dressler, M.D., *Gynecology*; P. Z.

<sup>1</sup> Class of 1895.

McDonald, M.D., *Physics and Optics*; L. C. Noble, Ph. Rg., *Pharmacy*;  
J. G. Bonine, M.D., *Bacteriology*.

The chair of *Electrotherapeutics* is vacant.

—*Circular of Information for 1900-1901.*

### STATE EXAMINATION, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Illinois..... | 4       | 0       | 4      |

### COLLEGE OF PHYSICIANS AND SURGEONS.

(SEE VOL. IV, p. 491.)

*Length of Course.*—The college now offers three terms a year of 16 weeks each, any two constituting a college year. Eight full terms of attendance are required for graduation, to be divided among four separate years unless special permission is given by the dean.

*Fees.*—

|                                 |   |   |   |   |   |         |
|---------------------------------|---|---|---|---|---|---------|
| Matriculation each year         | - | - | - | - | - | \$ 5.00 |
| Tuition each term               | - | - | - | - | - | 55.00   |
| Laboratory deposit each term    | - | - | - | - | - | 10.00   |
| Maternity Hospital, senior year | - | - | - | - | - | 10.00   |

*Graduates in 1900.*—134, of whom 24 had academic degrees.

*Students enrolled 1899-1900.*—

|                  | Number. | Academic degrees. |
|------------------|---------|-------------------|
| Seniors          | 161     | 14                |
| Juniors          | 160     | 13                |
| Sophomores       | 140     | 3                 |
| Freshmen         | 114     | 0                 |
| Special students | 14      | 1                 |
| Total            | 589     | 31                |

### FACULTY.

*Drop:* A. E. Hoadley, M.D., Boerne Bettman, M.D., J. N. Bartholomew, B.S., M.D., J. T. Milnamow, M.D., A. W. Harlan, M.D., D.D.S., W. H. G. Logan, D.D.S., and C. M. Burrows, M.D.

*Add:* G. P. Dreyer, Ph. D., *Physiology*; J. L. Porter, M.D., *Orthopedic Surgery*; J. M. Patton, M.D., *Physical Diagnosis*; D. L. Shaw, M.D., *Anatomy*; J. H. Hoelscher, M.D., *Clinical Medicine*.

—*Announcement, 1900-1901.*

### STATE EXAMINATIONS, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Idaho.....    | 1       | 0       | 1      |
| Illinois..... | 48      | 0       | 48     |

|                   | Passed. | Failed.        | Total. |
|-------------------|---------|----------------|--------|
| Iowa.....         | 24      | 1 <sup>1</sup> | 25     |
| Minnesota.....    | 8       | 2 <sup>2</sup> | 10     |
| New York.....     | 1       | 0              | 1      |
| North Dakota..... | 1       | 1 <sup>3</sup> | 2      |
| Pennsylvania..... | 1       | 0              | 1      |

## DUNHAM MEDICAL COLLEGE.

(SEE VOL. IV, p. 505.)

*Graduates in 1900.*—38, of whom one had an academic degree.*Students enrolled 1899-1900.*—125, of whom 2 had academic degrees.

## FACULTY.

*Drop*: W. A. Smith, M.D., A. C. Rasmussen, M.D., E. R. Kellogg, M.D.,  
A. W. Holcomb, M.D., J. P. Jones, M.D., H. M. Parker, M.D.

*Add*: T. H. Hudson, M.D., *Clinical Medicine*; H. A. Cameron, M.D.,  
H.M., *Homeopathics and Use of Repertory*; Harvey Farrington, M.D.,  
H.M., Ph.B., *Materia Medica*; P. S. Replogle, M.D., *Minor and Orifical  
Surgery*; F. C. Grey, M.D., *Physical Diagnosis*.

—10th Annual Announcement, 1900-1901.

## STATE EXAMINATION, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Illinois..... | 3       | 0       | 3      |

THE HAHNEMANN MEDICAL COLLEGE AND HOSPITAL  
OF CHICAGO.

(SEE VOL. IV, p. 500.)

*Graduates in 1900.*—42.*Students enrolled 1899-1900.*—164.

## FACULTY.

*Drop*: B. S. Arnulphy, M.D., W. J. Hawkes, M.D.

*Add*: W. H. Wilson, M.D., *Pathology and Bacteriology*; J. E. Tremaine,  
M.D., *Gynecology*.

—Announcement, 1900-1901.

## STATE EXAMINATIONS, 1900.

|               | Passed. | Failed.        | Total. |
|---------------|---------|----------------|--------|
| Georgia.....  | 1       | 0              | 1      |
| Illinois..... | 20      | 0              | 20     |
| Iowa.....     | 4       | 2 <sup>4</sup> | 6      |

<sup>1</sup> Class of 1884.<sup>2</sup> One each, classes 1890, 1899.<sup>3</sup> Class of 1897.<sup>4</sup> Class of 1893; same person failed twice.

|                     | Passed. | Failed.        | Total |
|---------------------|---------|----------------|-------|
| Massachusetts ..... | 0       | 1 <sup>1</sup> | 1     |
| Minnesota .....     | 2       | 1 <sup>2</sup> | 3     |
| New Jersey .....    | 1       | 0              | 1     |
| New York .....      | 2       | 0              | 2     |
| Ohio .....          | 3       | 0              | 3     |

#### HARVEY MEDICAL COLLEGE.

(SEE VOL. IV, p. 507.)

*Graduates in 1900.*—17, of whom one had an academic degree.

*Students enrolled 1899-1900.*—252.

#### FACULTY.

*Drop:* J. M. Sloan, C.M., M.D., Geo. F. Butler, Ph.G., M.D., Nils Remmen, M.D., Mary K. Mack, M.D., S. G. Burkholder, M.D., W. G. Darling, M.D.

*Add:* A. C. Wiener, M.D., *Orthopedic and Plastic Surgery*; S. V. Clevenger, M.D., *Neurology and Psychiatry*; E. S. Antisdale, M.D., *Clinical Ophthalmology*; E. K. Findley, M.D., *Diseases of the Eye*; Albert Peacock, M.D., *Orthography and Syndesmography*; A. F. Lemke, M.D., *Morbid Anatomy*; T. G. Allen, M.D., *Organic Chemistry and Hygiene*; J. E. Stanton, M.D., *Materia Medica*; Chas. G. Roehr, M.D., *Bacteriology*; George Jobson, M.D., *Osteography*; G. H. Bentley, D.D.S., *Oral Surgery and Dental Pathology*; E. S. Pettijohn, M.D., *Practice of Medicine*; W. O. Krohn, Ph.D., *Practical Psychology*.

—*Annual Announcement, 1900-1901.*

#### STATE EXAMINATIONS, 1900.

|                 | Passed. | Failed. | Total |
|-----------------|---------|---------|-------|
| Illinois .....  | 7       | 0       | 7     |
| Louisiana ..... | 1       | 0       | 1     |

#### HERING MEDICAL COLLEGE.

(SEE VOL. IV, p. 508.)

*Graduates in 1900.*—15.

*Students enrolled 1898-1899.*—81, of whom 10 were post-graduates.

#### FACULTY.

*Drop:* W. W. Stafford, LL.B., M.D., C. E. Sayre, M.D., J. E. Tremaine, M.D.

*Add:* M. M. Thompson, M.D., *Surgical Diseases of the Rectum*; W. H. Hipp, M.D., *Orthopedic Surgery*; Rhoda Pike-Barston, M.D., *Obstetrics*; W. P. MacCracken, M.D., *Physiology*.

—*Announcement, 1900-1901.*

<sup>1</sup> Class of 1892.

<sup>2</sup> Class of 1895.

## STATE EXAMINATIONS, 1900.

|                | Passed. | Failed.        | Total. |
|----------------|---------|----------------|--------|
| Alabama .....  | I       | 0              | I      |
| Illinois.....  | 4       | 0              | 4      |
| Maine.....     | I       | 0              | I      |
| Minnesota..... | 0       | 2 <sup>1</sup> | 2      |
| New York.....  | I       | I <sup>2</sup> | 2      |

## ILLINOIS MEDICAL COLLEGE.

(SEE VOL. IV, p. 509.)

*Graduates in 1899.*—23, of whom 2 had academic degrees.*Students enrolled 1899-1900.*—126.

## FACULTY.

*Drop:* J. L. Morris, A.M., M.D., J. J. Quirk, M.D., D. H. Galloway, Ph.G., M.D., E. E. Sangree, M.D., S. J. Boyd, M.D.

*Add:* A. Memelsdorf, M.D., *Dermatology and Venereal Diseases*; J. G. Mastin, M.D., *Pediatrics*; E. C. Seufert, M.D., *Acting Professor of Histology, Biology and Embryology*; Isaac Sundberg, D.D.S., *Dental Surgery*.

—*Announcement for Session of 1901.*

## STATE EXAMINATIONS, 1900.

|                   | Passed. | Failed.        | Total. |
|-------------------|---------|----------------|--------|
| Illinois.....     | 5       | I              | 6      |
| Minnesota.....    | I       | 0              | I      |
| New York.....     | 2       | 4 <sup>3</sup> | 6      |
| North Dakota..... | I       | 0              | I      |
| Pennsylvania..... | 0       | I              | I      |

## JENNER MEDICAL COLLEGE.

(SEE VOL. IV, p. 510.)

*Graduates in 1900.*—12.*Students enrolled 1899-1900.*—68.

## FACULTY.

*Drop:* C. W. Hawley, M.D., A. H. Tagert, M.D., Daniel Conboy, B.A., Ph.D., M.D., C. E. Bentley, D.D.S., E. H. Robinson, M.D., Antonio Lagorio, M.D., Adolph Hoffman, M.D.

*Add:* H. M. Martin, M.D., *Ophthalmology*; Arthur Loewy, M.D., *Nervous and Mental Diseases*; C. L. Franing, B.S., LL.B., *Medical Jurisprudence*; J. O. Brown, *Dental Surgery*; W. E. Duncan, M.D., *Genito-urinary Diseases*; J. H. Xelowski, M.D., *Bacteriology*.

—*Announcement for Session of 1900-1901.*<sup>1</sup> Both class of 1895.<sup>2</sup> Class of 1898.<sup>3</sup> One, class of 1898; three, class of 1899—two 2d examinations, one 4th examination.

## STATE EXAMINATIONS, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Illinois..... | 9       | 0       | 9      |
| Iowa.....     | 1       | 0       | 1      |

## THE NATIONAL MEDICAL COLLEGE AND HOSPITAL.

(SEE VOL. IV, p. 655.)

*Fees.*—Tuition each year is now \$70.*Graduates in 1900.*—3.*Students enrolled 1900-1901.*—246.

## FACULTY.

*Drop:* C. F. Basset, A.M., M.D., J. H. S. Johnson, M.D., Joseph Watry, M.D., J. A. Gessing, M.D., A. B. Davis, M.D., P. R. Barnes, LL.B., J. A. Bishop, B.S., W. B. Metcalf, M.D., W. F. Coy, M.D., C. E. Covey, M.D., E. H. Sparling, M.D., J. D. Craig, M.D.

*Add:* J. B. Weintraub, M.D., *Operative Surgery*; C. C. Bernard, M.D., *Surgery*; J. J. Thompson, M.D., *Gynecology*; B. C. Grabowicz, M.D., *Surgical Obstetrics*; R. S. Moss, M.D., *Physiologic Chemistry and Sanitation*; F. A. Leusmann, M.D., *Genito-Urinary Diseases*; P. A. Crum, M.D., *Anatomy*; H. Mai, Ph.G., M.D., *Materia Medica and Therapeutics*; J. F. Paulin, M.D., *Materia Medica*; W. W. Cook, M.D., *Physiologic Medicine*; Mary Mack, M.D., *Anatomy*; E. S. Walker, LL.B., *Medical Jurisprudence*; T. K. Long, A.M., LL.B., *Medical Jurisprudence*; C. O. Dorchester, M.D., *Materia Medica and Therapeutics*; J. H. Allen, M.D., *Clinical Dermatology*; C. D. Camp, M.D., *Theory and Practice*; W. E. Coates, M.D., *Pathology and Bacteriology*; C. W. Klinetop, M.D., *Physiology*.

—11th Annual Announcement, 1901.

## STATE EXAMINATIONS, 1900.

|                | Passed. | Failed.        | Total. |
|----------------|---------|----------------|--------|
| Arizona.....   | 1       | 0              | 1      |
| Minnesota..... | 0       | 1 <sup>1</sup> | 1      |
| Montana.....   | 1       | 0              | 1      |

## NORTHWESTERN UNIVERSITY MEDICAL SCHOOL.

*History.*—Organized in the Spring of 1859 as the Medical Department of Lind University. It at first required a preliminary year with a private preceptor, the student matriculated for the junior course, the fundamental branches, of five months' duration followed by an examination. The next year was devoted to the senior course—including the more advanced and practical subjects—of equal length, and the final examination being on the subjects of the second year only. In 1868 this graded course

<sup>1</sup> Class of 1896.

was lengthened to three years, of six months each—the first three years' course in the United States.

When Lind University collapsed financially, its medical department obtained a charter under the name of the Chicago Medical College (this was in 1864) and continued as a separate school until 1869 when it became the Medical Department of the Northwestern University under the name of The Northwestern University Medical School. This relation to the University, which was largely nominal at the first, was made real in 1890 when the fourth year was added to the course. *Pari passu* with lengthening the number years for the completed course was the increase of the number of months in each year, and the requirement of an entrance examination of gradually increased severity, until, in 1897, it equalled the requirements for admission into the Department of Arts.

**Entrance Requirements.**—Applicants must present diplomas or certificates from colleges, schools of science, accredited academies or high schools, or sustain an examination in the subjects which are required for admission to the College of Liberal Arts of this University. Full information may be obtained from the secretary of the faculty.

**Length of Course.**—Four years, of eight months each.

**Fees.**—

|                                 |   |   |   |   |         |
|---------------------------------|---|---|---|---|---------|
| Matriculation, paid but once    | - | - | - | - | \$ 5.00 |
| General, each year <sup>1</sup> | - | - | - | - | 135.00  |
| Breakage (deposit returnable)   | - | - | - | - | 10.00   |

*Graduates in 1900.*—82, of whom 19 had academic degrees.

*Students enrolled 1900.*—341.

#### FACULTY.

|                                              |                                                           |
|----------------------------------------------|-----------------------------------------------------------|
| Daniel Bonbright, LL.D.                      | M. P. Hatfield, A.M., M.D.                                |
| <i>Acting President.</i>                     | <i>(Emeritus) Pediatrics.</i>                             |
| N. S. Davis, A.M., M.D., LL.D.               | Edmund Andrews, A.M., M.D., LL.D.                         |
| <i>(Emeritus) Principles and Practice of</i> | <i>Clinical Surgery.</i>                                  |
| <i>Medicine; Clinical Medicine.</i>          | John H. Long, M.S. Sc.D.                                  |
| E. O. F. Roler, A.M., M.D.                   | <i>Chemistry; Director, Chemical Laboratories.</i>        |
| <i>(Emeritus) Obstetrics.</i>                | E. C. Dudley, A.M., M.D.                                  |
| J. H. Hollister, A.M., M.D.                  | <i>Gynecology.</i>                                        |
| <i>(Emeritus) Clinical Medicine.</i>         | John Edwin Owens, M.D.                                    |
| R. N. Isham, A.M., M.D.                      | <i>Surgery and Clinical Surgery and Clinical Surgery.</i> |
| <i>(Emeritus) Surgery.</i>                   |                                                           |

<sup>1</sup> \$10.00 discount for payment in advance.

- W. E. Casselberry, M.D.  
*Laryngology and Rhinology.*
- N. S. Davis, Jr., A.M., M.D., Secretary.  
*Principles and Practice of Medicine and Clinical Medicine.*
- F. S. Johnson, A.M., M.D., Dean.  
*Medicine and Clinical Medicine.*
- E. W. Andrews, A.M., M.D.  
*Clinical Surgery.*
- F. T. Andrews, A.M., M.D.  
*Clinical Gynecology.*
- G. W. Webster, M.D.  
*Physical Diagnosis.*
- Joseph Zeisler, M.D.  
*Skin and Venereal Diseases.*
- W. E. Morgan, M.D.  
*Surgical Anatomy and Operative Surgery; Lecturer, Clinical Surgery.*
- H. M. Starkey, M.D.  
*Clinical Ophthalmology and Otol-  
ogy.*
- Henry Gradle, M.D.  
*Ophthalmology and Otol-  
ogy.*
- Archibald Church, M.D.  
*Clinical Neurology, Mental Dis-  
eases and Medical Jurisprudence.*
- John Ridlon, A.M., M.D.  
*Orthopedic Surgery.*
- W. S. Hall, A.M., M.D., Ph.D.  
*Physiology (N. S. Davis Professor-  
ship).*
- A. R. Edwards, A.M., M.D.  
*Principles and Practice of Medicine  
and Clinical Medicine.*
- Weller Van Hook, A.B., M.D.  
*Surgery and Clinical Surgery.*
- J. B. De Lee, M.D.  
*Obstetrics.*
- Gustav Futterer, M.D.  
*Pathology.*
- R. B. Preble, A.B., M.D.  
*Medicine.*
- F. X. Walls, M.D.  
*Clinical Pediatrics.*
- F. R. Zeit, M.D.  
*Bacteriology and Clinical Pathol-  
ogy.*

## ASSISTANT PROFESSORS.

- F. B. Dains, M.S., Ph.D.  
*Chemistry.*
- T. J. Watkins, M.D.  
*Gynecology.*
- C. B. Reed, M.D.  
*Obstetrics.*
- Charles Hill, A.B., Ph.D.  
*Histology and Embryology.*

## ASSOCIATE PROFESSORS.

- S. G. Plummer, Jr., A.M., M.D.  
*Operative Surgery; Instructor, Clin-  
ical Surgery.*
- H. T. Patrick, M.D.  
*Nervous Diseases.*
- W. E. Schroeder, M.D.  
*Surgery.*

## INSTRUCTORS.

- F. A. Besley, M.D.  
*Clinical Surgery.*
- W. S. Barnes, M.D.  
*Operative Surgery.*
- A. J. Brialen, M.D.  
*Anatomy.*
- C. G. Buford, M.D.  
*Operative Surgery.*
- J. G. Campbell, A.B., M.D.  
*Clinical Neurology.*
- H. W. Cheney, M.D.  
*Operative Surgery.*
- Paul Chester, B.S., M.D.  
*Physical Diagnosis.*
- G. J. Dennis, D.D.S., M.D.  
*Clinical Pediatrics.*
- G. B. Dyche, A.B., M.D.  
*Clinical Medicine.*
- F. C. Eggert, M.D.  
*Clinical Medicine.*



- C. A. Elliott, B.S., M.D.  
*Clinical Medicine.*
- E. B. Fowler, A.B., M.D.  
*Clinical Medicine.*
- H. K. Gibson, M.D.  
*Clinical Medicine.*
- R. T. Gilmore, M.D.  
*Clinical Gynecology.*
- G. A. Gowen, M.D.  
*Clinical Neurology.*
- Julius Grinker, M.D.  
*Clinical Neurology.*
- A. M. Hall, A.M., M.D.  
*Clinical Ophthalmology and Otol-  
ogy.*
- W. S. Harpole, M.D.  
*Clinical Medicine.*
- A. D. Jackson, M.D.  
*Clinical Pediatrics.*
- C. M. Jacobs, M.D.  
*Clinical Orthopedic Surgery.*
- H. Kahn, Phar. M., M.D.  
*Clinical Ophthalmology and Otol-  
ogy.*
- A. F. Lemke, M.D.  
*Medicine.*
- H. H. Look, M.D.  
*Clinical Ophthalmology and Otol-  
ogy.*
- W. A. Mann, M.D.  
*Clinical Ophthalmology and Otol-  
ogy.*
- C. M. Mattes, M.D.  
*Clinical Surgery.*
- T. C. McGonagle, M.D.  
*Clinical Pediatrics.*
- Frederick Menge, M.D.  
*Clinical Laryngology and Rhinol-  
ogy.*
- C. H. Miller, Ph.G., M.D.  
*Pharmacology.*
- C. L. Mix, A.M., M.D.  
*Anatomy.*
- D. F. Monash, A.M., M.D.  
*Obstetrics.*
- P. F. Morf, M.D.  
*Anatomy and Physiology of the Cen-  
tral Nervous System.*
- A. E. Mowry, M.D.  
*Clinical Medicine.*
- L. C. Pardee, M.D.  
*Clinical Dermatology and Syphilol-  
ogy.*
- H. M. Richter, M.D.  
*Clinical Surgery.*
- David Salinger, M.D.  
*Clinical Ophthalmology and Otol-  
ogy.*
- H. E. Sauer, B.S., M.D.  
*Clinical Gynecology.*
- L. E. Schmidt, M.S., M.D.  
*Clinical Dermatology, Syphilology,  
and Genito-urinary Diseases.*
- F. G. Stubbs, A.M., M.D.  
*Clinical Laryngology and Rhinol-  
ogy.*
- F. C. Test, A.M., M.D.  
*Clinical Orthopedic Surgery.*
- C. F. Weir, M.S., M.D.  
*Anatomy.*
- H. C. Weiskopf, M.D.  
*Clinical Pediatrics.*

## DEMONSTRATORS.

P. T. Burns, M.D., *Anatomy* (Director Anatomic Laboratory).

## ASSISTANT DEMONSTRATORS IN ANATOMY.

W. B. Batcheller, M.D., F. K. Burr, M.D., F. R. Green, A.M., M.D.,  
C. H. Keogh, B.S., M.D., T. J. Knudson, M.D., W. L. Wilson, M.S.,  
M.D.

—Circular of Information, 1900-1901.

## STATE EXAMINATIONS, 1900.

|                   | Passed. | Failed. | Total. |
|-------------------|---------|---------|--------|
| Illinois.....     | 42      | 0       | 42     |
| Iowa.....         | 7       | 0       | 7      |
| Maine.....        | 1       | 0       | 1      |
| Minnesota.....    | 4       | 0       | 4      |
| Montana.....      | 1       | 0       | 1      |
| Ohio.....         | 1       | 0       | 1      |
| Pennsylvania..... | 1       | 0       | 1      |

## NORTHWESTERN UNIVERSITY, WOMAN'S MEDICAL SCHOOL.

(SEE VOL. IV, p. 495.)

*Graduates in 1900.*—21, of whom 4 had academic degrees.*Students enrolled 1899-1900.*—87, of whom 11 had academic degrees.

## FACULTY.

*Drop:* H. W. Rogers, LL.D., F. C. Wells, M.D., Katherine L. Angell, M.D., Corinne B. Eckley.*Add:* Josephine A. Jackson, M.D., *Materia Medica*; F. A. Besley, M.D., *Surgery*. The President's chair is vacant.—*Circular of Information, 1900-1901.*

## STATE EXAMINATIONS, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Idaho.....    | 1       | 0       | 1      |
| Illinois..... | 10      | 0       | 10     |
| Iowa.....     | 2       | 0       | 2      |

## RUSH MEDICAL COLLEGE (IN AFFILIATION WITH THE UNIVERSITY OF CHICAGO).

(SEE VOL. IV, p. 496.)

*Fees.*—The tuition is now \$50.00 a quarter.*Graduates in 1900.*—Not given in the announcement.*Students enrolled 1899-1900.*—

|                                   | Number. | Academic degrees. |
|-----------------------------------|---------|-------------------|
| Freshmen - - - - -                | 194     | 4                 |
| Sophomores - - - - -              | 228     | 30                |
| Juniors - - - - -                 | 219     | 40                |
| Seniors - - - - -                 | 247     | 46                |
| Post-graduates and specials - - - | 205     | ..                |
| Total - - - - -                   | 1093    | 120               |

## FACULTY.

*Drop:* Edward L. Holmes, M.D., LL.D.*Add:* L. F. Barker, M.B., *Anatomy*, and Jacques Loeb, M.D., Ph.D., *Physiology*. Norman Bridge, A.M., M.D. is now *Emeritus*.—*Announcement, 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed.        | Total. |
|--------------------|---------|----------------|--------|
| Arizona .....      | 3       | 0              | 3      |
| Idaho .....        | 1       | 2 <sup>1</sup> | 3      |
| Illinois .....     | 93      | 1              | 94     |
| Iowa .....         | 28      | 1 <sup>2</sup> | 29     |
| Louisiana .....    | 0       | 1              | 1      |
| Maine.....         | 1       | 0              | 1      |
| Minnesota.....     | 11      | 1 <sup>3</sup> | 12     |
| Montana .....      | 3       | 2 <sup>4</sup> | 5      |
| New Jersey.....    | 1       | 0              | 1      |
| New York .....     | 2       | 0              | 2      |
| North Dakota.....  | 7       | 0              | 7      |
| Oregon.....        | 1       | 0              | 1      |
| Pennsylvania ..... | 2       | 0              | 2      |

## INDIANA.

Indiana has made important changes in its law. Heretofore a diploma from a medical college complying with the standard of minimum qualifications established by the board of medical registration and examination would entitle its holder to a certificate for a license; the holders of diplomas from other institutions being required to pass an examination before the board. Hereafter it will require the possession of a diploma from a recognized college to secure the privilege of coming up for an examination, and only those who pass the examination will be entitled to the certificate. A single exception to this regulation applies to the present medical students in the medical schools of Indiana. Any one who has matriculated in one of the medical schools of Indiana prior to January 1, 1901, and is graduated therefrom in time to file his application to practise prior to January 1, 1905, will be entitled to a certificate without an examination.

*Executive Officer of the Board.*—Dr. W. F. Curryer, Secretary, Indianapolis.

<sup>1</sup> One each, classes 1870, 1881.

<sup>2</sup> Class of 1896.

<sup>3</sup> Class of 1897.

<sup>4</sup> One, class of 1883 (3d examination); one, class of 1888.

## FORT WAYNE.

## FORT WAYNE COLLEGE OF MEDICINE.

(SEE VOL. IV, p. 511.)

*Graduates in 1900.*—Not given in the announcement.*Students enrolled.*—Not given in the announcement.

## FACULTY.

*Drop:* H. A. Duemling, A.M., M.D. C. E. Barnett, M.D., has had *Surgical Anatomy* added to his chair, and J. B. McEvoy has been made professor of *General Pathology*.

—*Annual Announcement, 1900-1901.*

## STATE EXAMINATIONS, 1900.

(None reported.)

## INDIANAPOLIS.

## CENTRAL COLLEGE OF PHYSICIANS AND SURGEONS.

(SEE VOL. IV, p. 512.)

*Fees.*—Tuition raised from \$40.00 to \$50.00.*Graduates in 1900.*—15.*Students enrolled 1899-1900.*—101.

## FACULTY.

*Drop:* Minor Morris, A.B., M.D., A. J. Mullan, Ph.G., M.D.—*Circular of Information, 1900-1901.*

## STATE EXAMINATIONS, 1900.

|               | Passed. | Failed. | Total |
|---------------|---------|---------|-------|
| Illinois..... | 1       | 0       | 1     |
| Iowa.....     | 1       | 0       | 1     |
| Oregon.....   | 1       | 0       | 1     |

## THE MEDICAL COLLEGE OF INDIANA.

(SEE VOL. IV, p. 513.)

*Graduates in 1900.*—34.*Students enrolled 1899-1900.*—

|            |   |   |   |   |   |   |   |   |     |
|------------|---|---|---|---|---|---|---|---|-----|
| Seniors -  | - | - | - | - | - | - | - | - | 36  |
| Juniors -  | - | - | - | - | - | - | - | - | 45  |
| Sophomores | - | - | - | - | - | - | - | - | 63  |
| Freshmen   | - | - | - | - | - | - | - | - | 86  |
| Total      | - | - | - | - | - | - | - | - | 230 |

—*Announcement, 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed.        | Total. |
|--------------------|---------|----------------|--------|
| Illinois.....      | I       | 0              | I      |
| New Jersey.....    | I       | 0              | I      |
| New York.....      | I       | 0              | I      |
| Ohio .....         | 0       | 1 <sup>1</sup> | I      |
| Pennsylvania ..... | I       | 0              | I      |

## PHYSIO-MEDICAL COLLEGE OF INDIANA.

(SEE VOL. IV, p. 515.)

*Graduates in 1900.*—8.*Students enrolled 1899-1900.*—

|               |   |   |   |   |   |   |   |    |
|---------------|---|---|---|---|---|---|---|----|
| Post-graduate | - | - | - | - | - | - | - | I  |
| Seniors       | - | - | - | - | - | - | - | 8  |
| Juniors       | - | - | - | - | - | - | - | 10 |
| Sophomores    | - | - | - | - | - | - | - | 8  |
| Freshmen      | - | - | - | - | - | - | - | 10 |
| Total         | - | - | - | - | - | - | - | 37 |

## FACULTY.

Walter Smith, M.D., has the chair of *Surgical Anatomy* formerly filled by J. C. Quick, M.D. The chairs of *Physiology and Histology* have been united, but is now vacant.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

(None reported.)

## INDIAN TERRITORY.

(SEE VOL. II, p. 727.)

Several of the nations occupying the territory have enacted medical practice laws, but they are binding only upon the citizens (of the nation). All others can practise without securing a license as long as they may be permitted to remain in the territory. The treaties with the United States obligates the general government to remove "intruders" at the suggestion of the Indian by due process of law.

## IOWA.

(SEE VOL. III, pp. 281, 631.)

No one can begin to practise in Iowa until he has passed an examination before the state board of medical examiners. The

<sup>1</sup> Class of 1875.

qualifications entitling one to come before the board are essentially the possession of a diploma from a reputable medical college after a four years' course of study.

*Executive Officer of the Board.*—Dr. J. F. Kennedy, Secretary, State House, Des Moines.

### EXAMINATIONS, 1900.

| Name of college.                                                    | Passed. | Failed.        | Total. |
|---------------------------------------------------------------------|---------|----------------|--------|
| <b>DISTRICT OF COLUMBIA.</b>                                        |         |                |        |
| Georgetown University, School of Medicine .....                     | 1       | 0              | 1      |
| <b>ILLINOIS.</b>                                                    |         |                |        |
| College of Physicians and Surgeons.....                             | 24      | 1 <sup>1</sup> | 25     |
| Northwestern University Medical School .....                        | 7       | 0              | 7      |
| Northwestern University, Woman's Medical School .....               | 2       | 0              | 2      |
| Rush Medical College.....                                           | 28      | 1 <sup>2</sup> | 29     |
| Chicago Homeopathic Medical College .....                           | 3       | 0              | 3      |
| Hahnemann Medical College and Hospital of Chicago .....             | 4       | 2 <sup>3</sup> | 6      |
| Bennett College of Eclectic Medicine and Surgery..                  | 1       | 0              | 1      |
| American Medical Missionary College.....                            | 1       | 0              | 1      |
| Jenner Medical College.....                                         | 1       | 0              | 1      |
| <b>INDIANA.</b>                                                     |         |                |        |
| Central College of Physicians and Surgeons .....                    | 1       | 0              | 1      |
| <b>IOWA.</b>                                                        |         |                |        |
| Iowa College of Physicians and Surgeons.....                        | 13      | 0              | 13     |
| Keokuk Medical College .....                                        | 20      | 3 <sup>4</sup> | 23     |
| College of Physicians and Surgeons of Keokuk ....                   | 0       | 4 <sup>5</sup> | 4      |
| Homeopathic Medical Department of the State University of Iowa..... | 7       | 0              | 7      |
| Medical Department of the State University of Iowa .....            | 14      | 0              | 14     |
| Sioux City College of Medicine .....                                | 4       | 0              | 4      |
| <b>KANSAS.</b>                                                      |         |                |        |
| Kansas Medical College .....                                        | 1       | 0              | 1      |
| <b>KENTUCKY.</b>                                                    |         |                |        |
| Kentucky University, Medical Department .....                       | 1       | 1 <sup>6</sup> | 2      |
| <b>MARYLAND.</b>                                                    |         |                |        |
| Baltimore Medical College.....                                      | 0       | 2 <sup>7</sup> | 2      |
| College of Physicians and Surgeons.....                             | 1       | 0              | 1      |
| <b>MICHIGAN.</b>                                                    |         |                |        |
| University of Michigan, Department of Medicine and Surgery.....     | 6       | 0              | 6      |

<sup>1</sup> Class of 1884.

<sup>2</sup> Class of 1896.

<sup>3</sup> Class of 1893; same person failed twice.

<sup>4</sup> Two of the failures by the same person.

<sup>5</sup> Class of 1882; same person failed four times.

<sup>6</sup> Class of 1882.

<sup>7</sup> Same person failed twice.

| Name of college.                                  | Passed.    | Failed.        | Total.     |
|---------------------------------------------------|------------|----------------|------------|
| <b>MISSOURI.</b>                                  |            |                |            |
| Kansas City Medical College.....                  | 1          | 0              | 1          |
| University Medical College.....                   | 1          | 0              | 1          |
| Central Medical College.....                      | 1          | 0              | 1          |
| Barnes Medical College.....                       | 3          | 2 <sup>1</sup> | 5          |
| Marion-Sims College of Medicine.....              | 2          | 0              | 2          |
| St. Louis College of Physicians and Surgeons..... | 1          | 0              | 1          |
| Washington University, Medical Department.....    | 3          | 0              | 3          |
| <b>NEBRASKA.</b>                                  |            |                |            |
| John A. Creighton Medical College.....            | 4          | 0              | 4          |
| <b>NEW YORK.</b>                                  |            |                |            |
| College of Medicine, Syracuse University.....     | 1          | 0              | 1          |
| <b>OHIO.</b>                                      |            |                |            |
| Ohio Medical University.....                      | 0          | 2 <sup>2</sup> | 2          |
| <b>OREGON.</b>                                    |            |                |            |
| Medical Department, University of Oregon.....     | 1          | 0              | 1          |
| <b>PENNSYLVANIA.</b>                              |            |                |            |
| University of Pennsylvania, Medical Department..  | 3          | 1 <sup>3</sup> | 4          |
| Jefferson Medical College.....                    | 1          | 0              | 1          |
| <b>CANADA.</b>                                    |            |                |            |
| Queen's College, Faculty of Medicine.....         | 3          | 0              | 3          |
| <b>FOREIGN.</b>                                   |            |                |            |
| University of Munich, Germany.....                | 1          | 0              | 1          |
|                                                   | <u>166</u> | <u>19</u>      | <u>185</u> |

## DES MOINES.

IOWA COLLEGE OF PHYSICIANS AND SURGEONS, MEDICAL DEPARTMENT OF DRAKE UNIVERSITY.

(SEE VOL. IV, p. 516.)

## STATE EXAMINATIONS, 1900.

|             | Passed. | Failed. | Total. |
|-------------|---------|---------|--------|
| Iowa.....   | 13      | 0       | 13     |
| Oregon..... | 1       | 0       | 1      |

## KEOKUK.

KEOKUK MEDICAL COLLEGE, COLLEGE OF PHYSICIANS AND SURGEONS.

(SEE VOL. IV, p. 517.)

*Fees.—*

|                                        |   |   |   |         |
|----------------------------------------|---|---|---|---------|
| Tuition, first, second and third years | - | - | - | \$50.00 |
| Tuition, fourth year                   | - | - | - | 40.00   |

<sup>1</sup> Same person failed twice.

<sup>2</sup> Class of 1898; same person failed twice.

<sup>3</sup> Class of 1877.

*Graduates in 1900.*—42, of whom one had an academic degree.  
*Students enrolled 1899-1900.*—

|                      | Number. | Academic degrees. |
|----------------------|---------|-------------------|
| Seniors - - - - -    | 45      | 1                 |
| Juniors - - - - -    | 69      | 5                 |
| Sophomores - - - - - | 69      | 4                 |
| Freshmen - - - - -   | 74      | 0                 |
| Total - - - - -      | 257     | 10                |

—*Announcement, 1900-1901.*

### STATE EXAMINATIONS, 1900.

|                   | Passed. | Failed.        | Total. |
|-------------------|---------|----------------|--------|
| Illinois.....     | 4       | 0              | 4      |
| Iowa.....         | 20      | 3 <sup>1</sup> | 23     |
| Minnesota.....    | 0       | 1 <sup>2</sup> | 1      |
| North Dakota..... | 0       | 1 <sup>3</sup> | 1      |
| Oregon.....       | 1       | 0              | 1      |

### HOMEOPATHIC MEDICAL DEPARTMENT OF THE STATE UNIVERSITY OF IOWA.

(SEE VOL. IV, p. 518.)

*Graduates in 1900.*—10.

*Students enrolled 1899-1900.*—

|                           |    |
|---------------------------|----|
| Senior class - - - - -    | 10 |
| Junior " - - - - -        | 18 |
| Sophomore class - - - - - | 16 |
| Freshman " - - - - -      | 26 |
| Total - - - - -           | 70 |

### FACULTY.

*Drop:* Amos N. Currier, A.M., LL.D., *Acting President*; P. E. Triem, A.M., M.D.

*Add:* George E. MacLean, Ph.D., LL.D., *President of the University*; Frederick Becker, M.D., *Theory and Practice.*

—*Announcement for Session of 1900-1901.*

### STATE EXAMINATION, 1900.

|            | Passed | Failed. | Total. |
|------------|--------|---------|--------|
| Iowa ..... | 7      | 0       | 7      |

### MEDICAL DEPARTMENT OF THE STATE UNIVERSITY OF IOWA.

(SEE VOL. IV, p. 519.)

*Graduates in 1900.*—18, of whom 2 had academic degrees.

*Students enrolled 1899-1900.*—

<sup>1</sup> Two of the failures by the same person.

<sup>2</sup> Class of 1898.

<sup>3</sup> Class of 1897.



|                           | Number. | Academic<br>degrees. |
|---------------------------|---------|----------------------|
| Senior class - - - - -    | 19      | 2                    |
| Junior " - - - - -        | 39      | 3                    |
| Sophomore class - - - - - | 74      | 7                    |
| Freshman " - - - - -      | 101     | 6                    |
| Total - - - - -           | 233     | 18                   |

## FACULTY.

*Make* : George E. MacLean, Ph.D., LL.D., *President of the University*, in the place of Prof. Currier.

— *Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                 | Passed. | Failed. | Total. |
|-----------------|---------|---------|--------|
| Iowa .....      | 14      | 0       | 14     |
| Minnesota ..... | 2       | 0       | 2      |

## SIOUX CITY.

SIOUX CITY COLLEGE OF MEDICINE.<sup>1</sup>

(SEE VOL. IV, p. 520.)

## STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed. | Total. |
|--------------------|---------|---------|--------|
| Iowa .....         | 4       | 0       | 4      |
| Pennsylvania ..... | 1       | 0       | 1      |

## KANSAS.

Kansas has adopted a new law.

SECTION 1 provides for a state board of medical registration and examination, consisting of seven members, no one "school" to have a majority. The board is to meet four times a year on the second Tuesday of February, June and October and on a date to be selected by the board. Five members will constitute a quorum, the vote of a majority of those present being necessary to grant a license, unless the full board is present when five votes are required.

SECTION 2 provides for the registration of those who are now practising in Kansas.

SECTION 3 requires all persons intending to practise in Kansas to make an application to do so in writing. The applicant must pay the fee and submit evidence of pursuing the study of medicine for at least three periods of six months—no

<sup>1</sup> No announcement received.

two periods in the same year; or, if after April 1, 1902, four periods in place of three, and then pass an examination. The board has the privilege of accepting the examination of another body as conclusive by accepting the evidence of a diploma from a medical school, or the license of another state board, if the conditions imposed are equivalent to those required by the law. Graduates of a legally chartered school of osteopathy whose course is not less than four terms of five months each, two of which can be taken in the same year "shall" be given a license to practise osteopathy. A temporary license may be issued to any student of medicine or practitioner of medicine not qualified under the law upon the written request of a majority of the practitioners under the act in the county where he or she desires to practise. If no physicians are registered in the county, then the county commissioners may make application for such temporary certificate.

SECTION 4.—Certificates issued by the board must be recorded in the office of the clerk of the county, who must report to the board in December of each year a list of all certificates recorded and in force; also a list of those which have been revoked, or the owners have removed from the county or died during the year. The fee for recording is \$1.00.

SECTION 5.—The fee for an examination \$15.00; for examining a diploma or the license of another state \$10.00.

SECTION 6 defines practice of medicine and permits any person "holding a diploma issued by an optical college, who has studied the anatomy of the eye and contiguous parts, and human physiology and natural philosophy for at least six months under a competent teacher and who shall pass an examination satisfactory to the state board of medical registration and examination" to register as an "optician" or "doctor of optics," and shall be otherwise governed by this act so far as the same is applicable.

SECTION 7 makes unregistered practice a misdemeanor.

SECTION 8 makes false statements to the board perjury.

SECTION 9 repeals the old law.

SECTION 10 designates the time the new law is to take effect.

*Note.*—The board had not yet been appointed when this statement is prepared.

## KANSAS CITY.

## COLLEGE OF PHYSICIANS AND SURGEONS.

(SEE VOL. IV, p. 521.)

*Entrance Requirements.*—Those of the Association of American Medical Colleges.<sup>1</sup>

*Length of Course.*—Four years, of seven months each.

*Fees.*—

|                                      |   |   |   |   |         |
|--------------------------------------|---|---|---|---|---------|
| Matriculation, paid but once         | - | - | - | - | \$ 5.00 |
| Tuition, 1st, 2d, and 3d years, each | - | - | - | - | 60.00   |
| " 4th year                           | - | - | - | - | 50.00   |
| Scholarship                          | - | - | - | - | 175.00  |

*Graduates in 1900.*—21.

*Students enrolled 1899-1900.*—99.

## FACULTY.

*Drop:* Dora G. Wilson, M.D., J. H. Smith, M.D., J. L. B. Eager, M.D., A. E. Smith, M.S., M.D.

*Change:* J. H. Johnson, M.D., *Anatomy to Diseases of the Eye and Ear*; Z. Nason, M.D., *Dermatology to Obstetrics and Genito-urinary Diseases*.

*Add:* A. M. Wilson, A.M., M.D., *Physiology*; E. D. Williams, M.D., *Anatomy*; Howard Hill, M.D., *Surgical Anatomy*; H. E. Pearse, M.D., *Diseases of Women*; G. A. Boyd, M.D., *Pathology and Bacteriology*; J. B. Connell, M.D., *Dermatology*; R. A. Roberts, A.M., M.D., *Histology and Microscopy*.

—7th Annual Announcement, Session of 1900-1901.

## STATE EXAMINATION, 1900.

|                | Passed. | Failed. | Total. |
|----------------|---------|---------|--------|
| Minnesota..... | 1       | 0       | 1      |

## LAWRENCE.

## UNIVERSITY OF KANSAS, SCHOOL OF MEDICINE.

(SEE VOL. IV, p. 651.)

*Students enrolled 1900.*—

|             |   |   |   |   |   |   |   |    |
|-------------|---|---|---|---|---|---|---|----|
| Second year | - | - | - | - | - | - | - | 5  |
| First year  | - | - | - | - | - | - | - | 32 |

## FACULTY.

*Drop:* George Wagner, Ph.C., A. P. Mathews, M.D., and C. E. McClung, A.B., Ph.G.

—Catalogue, 1900-1901.

<sup>1</sup> See Vol. IV, p. 455.

## TOPEKA.

## KANSAS MEDICAL COLLEGE.

(SEE VOL. IV, p. 523.)

*Graduates in 1900.*—27, of whom 2 had academic degrees.*Students enrolled 1899-1900.*—III, of whom 3 had academic degrees.

## FACULTY.

*Drop* : S. E. Sheldon, M.D.*Add* : W. F. Brown, M.D., *Chemistry* ; G. O. Morbridge, M.D., *General Pathology*.—*Announcement, 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed. | Total |
|--------------------|---------|---------|-------|
| Iowa .....         | 1       | 0       | 1     |
| Pennsylvania ..... | 2       | 0       | 2     |

## KENTUCKY.

Kentucky permits the registration of physicians who have a diploma from a medical school acceptable to the board. The Kentucky law is peculiar in that the board of health is charged with the duty of restraining from practice those who are not registered, and of removing from registration any who transgress the rules of professional conduct as indicated in the law.

*Executive Officer of the Board.*—Dr. J. N. McCormack, Secretary, Bowling Green.

## LOUISVILLE.

THE HOSPITAL COLLEGE OF MEDICINE, MEDICAL DEPARTMENT  
OF THE CENTRAL UNIVERSITY OF KENTUCKY.

(SEE VOL. IV, p. 524.)

*Graduates in 1900.*—56.*Students enrolled 1899-1900.*—208.—*Announcement for 1901.*

## STATE EXAMINATIONS, 1900.

|                           | Passed. | Failed.        | Total |
|---------------------------|---------|----------------|-------|
| District of Columbia..... | 1       | 0              | 1     |
| Illinois.....             | 4       | 0              | 4     |
| Minnesota.....            | 1       | 1 <sup>1</sup> | 2     |
| Ohio.....                 | 1       | 0              | 1     |
| Pennsylvania.....         | 0       | 1              | 1     |
| South Carolina.....       | 0       | 1 <sup>1</sup> | 1     |
| Virginia.....             | 3       | 0              | 3     |

<sup>1</sup> Class of 1898.

## KENTUCKY SCHOOL OF MEDICINE AND HOSPITAL.

(SEE VOL. IV, p. 525.)

*Graduates in 1900.*—35.*Students enrolled 1899-1900.*—276.

## FACULTY.

Upton Muir, A.B., LL.B., is now professor of *Medical Jurisprudence* in place of D. D. Fairleigh, B.L.

—*Announcement, 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| Illinois .....      | I       | 0       | I      |
| Louisiana .....     | I       | I       | 2      |
| Montana .....       | 0       | I       | I      |
| North Carolina .... | I       | 0       | I      |
| Oregon .....        | I       | 0       | I      |
| Virginia .....      | I       | 0       | I      |

## KENTUCKY UNIVERSITY, MEDICAL DEPARTMENT.

(SEE VOL. IV, p. 529.)

## STATE EXAMINATION, 1900.

|            | Passed. | Failed.        | Total. |
|------------|---------|----------------|--------|
| Iowa ..... | I       | I <sup>1</sup> | 2      |

## LOUISVILLE MEDICAL COLLEGE.

(SEE VOL. IV, p. 526.)

*Graduates in 1900.*—12.*Students enrolled 1899-1900.*—133.

## FACULTY.

*Drop* : I. T. Woodson, LL.B.—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                | Passed. | Failed. | Total. |
|----------------|---------|---------|--------|
| Alabama .....  | I       | 0       | I      |
| Illinois ..... | 3       | 0       | 3      |

## LOUISVILLE NATIONAL MEDICAL COLLEGE.

(SEE VOL. IV, p. 528.)

## STATE EXAMINATION, 1900.

|                      | Passed. | Failed.        | Total. |
|----------------------|---------|----------------|--------|
| South Carolina ..... | 0       | I <sup>1</sup> | I      |

<sup>1</sup> Class of 1882.<sup>2</sup> Class of 1894.

## SOUTHWESTERN HOMEOPATHIC MEDICAL COLLEGE.

(SEE VOL. IV, p. 530.)

*Length of Course.*—Four years, of seven months each.*Fees.*—

|                                                     |   |   |   |   |   |         |
|-----------------------------------------------------|---|---|---|---|---|---------|
| Matriculation                                       | - | - | - | - | - | \$ 5.00 |
| Lecture ticket (yearly)                             | - | - | - | - | - | 65.00   |
| Demonstrator's ticket, first and second years, each | - | - | - | - | - | 10.00   |
| Laboratory, three years                             | - | - | - | - | - | 5.00    |

*Graduates in 1900.*—6.*Students enrolled 1899-1900.*—22.

## FACULTY.

*Drop:* J. M. Higgins, A.M., LL.D., M.D. H. L. Lott, M.D., is now Professor of *Mental and Nervous Diseases*.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

(None reported.)

## UNIVERSITY OF LOUISVILLE, MEDICAL DEPARTMENT.

(SEE VOL. IV, p. 527.)

*Graduates in 1900.*—39, of whom 8 had academic degrees.*Students enrolled 1899-1900.*—156, of whom 23 had academic degrees.—*Annual Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed.        | Total. |
|--------------------|---------|----------------|--------|
| Illinois.....      | 4       | 0              | 4      |
| Louisiana .....    | 3       | 1              | 4      |
| Maine.....         | 1       | 0              | 1      |
| Minnesota.....     | 1       | 0              | 1      |
| New York.....      | 1       | 0              | 1      |
| Ohio .....         | 0       | 1 <sup>1</sup> | 1      |
| Pennsylvania ..... | 1       | 1              | 2      |

## LOUISIANA.

(SEE VOL. II, p. 734.)

Graduates from medical colleges accepted by the board may apply for an examination, which must be passed before a license to practise will be issued.

*Executive Officer of the Board.*—Dr. F. A. Larue, Secretary, 624 Gravier street, New Orleans.

<sup>1</sup> Class of 1893.

## EXAMINATIONS, 1900.

| Name of college.                                   | Passed.  | Failed.  | Total.    |
|----------------------------------------------------|----------|----------|-----------|
| <b>COLORADO.</b>                                   |          |          |           |
| Gross Medical College.....                         | 1        | 0        | 1         |
| <b>GEORGIA.</b>                                    |          |          |           |
| Atlanta Medical College.....                       | 1        | 0        | 1         |
| Southern Medical College.....                      | 1        | 0        | 1         |
| <b>ILLINOIS.</b>                                   |          |          |           |
| Rush Medical College.....                          | 0        | 1        | 1         |
| Harvey Medical College.....                        | 1        | 0        | 1         |
| <b>KENTUCKY.</b>                                   |          |          |           |
| Kentucky School of Medicine .....                  | 1        | 1        | 2         |
| University of Louisville, Medical Department.....  | 3        | 1        | 4         |
| <b>LOUISIANA.</b>                                  |          |          |           |
| Tulane University of Louisiana, Medical Department | 63       | 3        | 66        |
| Medical College of New Orleans University.....     | 1        | 1        | 2         |
| <b>MAINE.</b>                                      |          |          |           |
| Medical Department of Bowdoin College.....         | 1        | 0        | 1         |
| <b>MISSOURI.</b>                                   |          |          |           |
| Barnes Medical College .....                       | 0        | 1        | 1         |
| Missouri Medical College.....                      | 0        | 1        | 1         |
| <b>NEW YORK.</b>                                   |          |          |           |
| Bellevue Hospital Medical College .....            | 1        | 0        | 1         |
| <b>PENNSYLVANIA.</b>                               |          |          |           |
| University of Pennsylvania, Medical Department..   | 1        | 0        | 1         |
| <b>TENNESSEE.</b>                                  |          |          |           |
| Memphis Hospital Medical College.....              | 12       | 1        | 13        |
| Medical Department of the University of Nashville. | 1        | 0        | 1         |
| Vanderbilt University, Medical Department.....     | 6        | 0        | 6         |
| University of the South, Medical Department.....   | 2        | 0        | 2         |
| <b>TEXAS.</b>                                      |          |          |           |
| Department of Medicine, University of Texas.....   | 1        | 0        | 1         |
| <b>FOREIGN.</b>                                    |          |          |           |
| Ireland University.....                            | 1        | 0        | 1         |
|                                                    | <hr/> 98 | <hr/> 10 | <hr/> 108 |

## NEW ORLEANS.

## MEDICAL COLLEGE OF NEW ORLEANS UNIVERSITY.

(SEE VOL. IV, p. 532.)

*Entrance Requirements.*—Those of the Association of American Medical Colleges<sup>1</sup>.

<sup>1</sup> See Vol. IV, p. 435.

*Graduates in 1900.*—8.

*Students enrolled 1899-1900.*—

|                 |   |   |   |   |   |   |    |
|-----------------|---|---|---|---|---|---|----|
| Senior class    | - | - | - | - | - | - | 8  |
| Junior class    | - | - | - | - | - | - | 2  |
| Sophomore class | - | - | - | - | - | - | 8  |
| Freshman class  | - | - | - | - | - | - | 14 |
| Total           | - | - | - | - | - | - | 32 |

#### FACULTY.

*Drop:* T. A. Walker, A.M., M.D., L. T. Burbridge, M.D.

*Add:* L. C. Rondaney, M.D., *Gynecology and Obstetrics*; *Materia Medica* to Professor H. J. Clements' chair, who is also dean. Professor C.W. Vance now has *Dermatology, Hygiene and Pediatrics*.

—*Year Book, 1899-1900.*

#### STATE EXAMINATIONS, 1900.

|                 | Passed. | Failed. | Total. |
|-----------------|---------|---------|--------|
| Alabama .....   | 0       | 1       | 1      |
| Arizona .....   | 1       | 0       | 1      |
| Louisiana ..... | 1       | 1       | 2      |

TULANE UNIVERSITY OF LOUISIANA, MEDICAL DEPARTMENT.

(SEE VOL. IV, p. 531.)

*Fees.*—

|                                       |   |   |   |   |   |          |
|---------------------------------------|---|---|---|---|---|----------|
| Tuition, first year                   | - | - | - | - | - | \$130.00 |
| Tuition, second year                  | - | - | - | - | - | 145.00   |
| Tuition, third and fourth years, each | - | - | - | - | - | 135.00   |
| Breakage, first and third years, each | - | - | - | - | - | 5.00     |
| Breakage, second year                 | - | - | - | - | - | 10.00    |
| Graduation                            | - | - | - | - | - | 30.00    |

*Graduates in 1900.*—110, of whom 2 had degrees in philosophy.

*Students enrolled 1899-1900.*—395, of whom 11 had degrees in philosophy.

—*Circular for 1900-1901.*

#### STATE EXAMINATIONS, 1900.

|                           | Passed. | Failed.        | Total. |
|---------------------------|---------|----------------|--------|
| Alabama .....             | 8       | 1 <sup>1</sup> | 9      |
| District of Columbia..... | 1       | 0              | 1      |
| Louisiana .....           | 63      | 3              | 66     |
| New York.....             | 1       | 0              | 1      |

#### MAINE.

(SEE VOL. II, p. 736.)

The certificate issued to those who successfully pass the ex-

<sup>1</sup> Class of 1896.



amination of the state board of medical examiners is all that is necessary to secure the right to practise in Maine. Any one of good moral character, at least 21 years old, may apply for an examination.

*Executive Officer of the Board.*—Dr. A. K. P. Meserve, Secretary, 109 Emery Street, Portland.

### EXAMINATIONS, 1900.

| Name of college.                                                 | Passed. | Failed.        | Total. |
|------------------------------------------------------------------|---------|----------------|--------|
| <b>GEORGIA.</b>                                                  |         |                |        |
| Atlanta College of Physicians and Surgeons .....                 | 1       | 0              | 1      |
| <b>ILLINOIS.</b>                                                 |         |                |        |
| Northwestern University Medical School .....                     | 1       | 0              | 1      |
| Rush Medical College.....                                        | 1       | 0              | 1      |
| Hering Medical College .....                                     | 1       | 0              | 1      |
| <b>KENTUCKY.</b>                                                 |         |                |        |
| University of Louisville, Medical Department.....                | 1       | 0              | 1      |
| <b>MAINE.</b>                                                    |         |                |        |
| Medical Department of Bowdoin College .....                      | 28      | 0              | 28     |
| <b>MARYLAND.</b>                                                 |         |                |        |
| Baltimore Medical College.....                                   | 1       | 0              | 1      |
| Baltimore University School of Medicine .....                    | 3       | 0              | 3      |
| Maryland Medical College.....                                    | 1       | 0              | 1      |
| <b>MASSACHUSETTS.</b>                                            |         |                |        |
| Medical School of Harvard University.....                        | 4       | 0              | 4      |
| Boston University School of Medicine .....                       | 4       | 0              | 4      |
| Tufts College Medical School.....                                | 1       | 0              | 1      |
| <b>MICHIGAN.</b>                                                 |         |                |        |
| University of Michigan, Department of Medicine and Surgery ..... | 1       | 0              | 1      |
| <b>MINNESOTA.</b>                                                |         |                |        |
| College of Medicine and Surgery, University of Minnesota.....    | 1       | 0              | 1      |
| <b>NEW HAMPSHIRE.</b>                                            |         |                |        |
| Dartmouth College, Medical School.....                           | 4       | 1 <sup>1</sup> | 5      |
| <b>NEW YORK.</b>                                                 |         |                |        |
| Long Island College Hospital.....                                | 2       | 0              | 2      |
| College of Physicians and Surgeons (Columbia)....                | 2       | 0              | 2      |
| University of the City of New York, Medical Department .....     | 1       | 0              | 1      |
| College of Medicine, Syracuse University.....                    | 1       | 0              | 1      |
| <b>OHIO.</b>                                                     |         |                |        |
| Eclectic Medical Institute .....                                 | 0       | 1 <sup>2</sup> | 1      |
| Cleveland Homeopathic Medical College .....                      | 1       | 0              | 1      |

<sup>1</sup> Class of 1897.

<sup>2</sup> Class of 1887.

| Name of college.                                  | Passed.   | Failed.  | Total.    |
|---------------------------------------------------|-----------|----------|-----------|
| <b>PENNSYLVANIA.</b>                              |           |          |           |
| University of Pennsylvania, Medical Department .. | 1         | 0        | 1         |
| Woman's Medical College of Pennsylvania .....     | 2         | 0        | 2         |
| Medico-Chirurgical College of Philadelphia.....   | 1         | 0        | 1         |
| <b>TENNESSEE.</b>                                 |           |          |           |
| Chattanooga Medical College.....                  | 1         | 0        | 1         |
| <b>VERMONT.</b>                                   |           |          |           |
| Medical Department, University of Vermont .....   | 3         | 0        | 3         |
| <b>CANADA.</b>                                    |           |          |           |
| McGill University, Medical Department.....        | 1         | 0        | 1         |
| Non-graduates .....                               | 7         | 3        | 10        |
|                                                   | <u>76</u> | <u>5</u> | <u>81</u> |

**BRUNSWICK.**

**MEDICAL SCHOOL OF MAINE, MEDICAL DEPARTMENT OF BOWDOIN COLLEGE.**

(SEE VOL. IV, p. 533.)

*Graduates in 1900.*—32, of whom 9 had academic degrees.

*Students enrolled 1899-1900.*—104, of whom 22 had academic degrees.

—*Announcement for Session of 1900-1901.*

**STATE EXAMINATIONS, 1900.**

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Louisiana .....     | 1       | 0              | 1      |
| Maine.....          | 28      | 0              | 28     |
| Massachusetts ..... | 7       | 2 <sup>1</sup> | 9      |
| New Hampshire.....  | 6       | 0              | 6      |
| New Jersey .....    | 1       | 0              | 1      |
| New York .....      | 1       | 0              | 1      |

**PORTLAND.**

**PORTLAND SCHOOL FOR MEDICAL INSTRUCTION.**

(SEE VOL. IV, p. 652.)

*Students enrolled 1899-1900.*—33, of whom 4 had academic degrees.

—*45th Annual Announcement, 1901.*

**MARYLAND.**

(SEE VOL. II, p. 737.)

There are two entirely independent boards in Maryland. The requirements to take the examination are satisfactory proof of being 21 years of age, good moral character, a competent com-

<sup>1</sup> One each, classes 1895, 1899.

mon school education, and graduated from some legally incorporated medical school, whose course covers at least three years.

*Executive Officers of the Boards.*—Representing the Medical and Chirurgical Faculty of Maryland, Dr. J. McP. Scott, Secretary, Hagerstown; representing the Maryland State Homeopathic Society, Dr. J. S. Garrison, Secretary, Easton.

### EXAMINATIONS, 1900.

| Name of college.                                                   | Passed.   | Failed.   | Total.     |
|--------------------------------------------------------------------|-----------|-----------|------------|
| <b>CONNECTICUT.</b>                                                |           |           |            |
| Yale University, Medical Department.....                           | 1         | 0         | 1          |
| <b>DISTRICT OF COLUMBIA.</b>                                       |           |           |            |
| Georgetown University, School of Medicine.....                     | 2         | 0         | 2          |
| Howard University, Medical Department.....                         | 2         | 0         | 2          |
| <b>MARYLAND.</b>                                                   |           |           |            |
| Baltimore Medical College.....                                     | 13        | 2         | 15         |
| Baltimore University School of Medicine.....                       | 2         | 3         | 5          |
| College of Physicians and Surgeons.....                            | 13        | 1         | 14         |
| Johns Hopkins University, Medical Department....                   | 7         | 0         | 7          |
| University of Maryland, School of Medicine.....                    | 41        | 4         | 45         |
| Maryland Medical College.....                                      | 6         | 5         | 11         |
| Southern Homeopathic Medical College.....                          | 6         | 0         | 6          |
| <b>MICHIGAN.</b>                                                   |           |           |            |
| University of Michigan, Department of Medicine<br>and Surgery..... | 1         | 0         | 1          |
| <b>OHIO.</b>                                                       |           |           |            |
| Pulte Medical College.....                                         | 1         | 0         | 1          |
| <b>PENNSYLVANIA.</b>                                               |           |           |            |
| University of Pennsylvania, Medical Department..                   | 2         | 0         | 2          |
| Jefferson Medical College.....                                     | 1         | 1         | 2          |
| Medico-Chirurgical College of Philadelphia.....                    | 0         | 1         | 1          |
| <b>SOUTH CAROLINA.</b>                                             |           |           |            |
| Medical College of South Carolina.....                             | 1         | 0         | 1          |
| Failed to return identification card.....                          | 0         | 3         | 3          |
|                                                                    | <u>99</u> | <u>20</u> | <u>119</u> |

### BALTIMORE.

#### BALTIMORE MEDICAL COLLEGE.

(SEE VOL. IV, p. 535.)

*Graduates in 1900.*—61.

*Students enrolled 1899-1900.*—

|             |   |   |   |   |   |   |     |
|-------------|---|---|---|---|---|---|-----|
| Fourth year | - | - | - | - | - | - | 71  |
| Third "     | - | - | - | - | - | - | 95  |
| Second "    | - | - | - | - | - | - | 112 |
| First "     | - | - | - | - | - | - | 116 |
| Specials    | - | - | - | - | - | - | 16  |
| <hr/>       |   |   |   |   |   |   |     |
| Total       | - | - | - | - | - | - | 410 |

—Announcement for Session of 1900-1901.

### STATE EXAMINATIONS, 1900.

|                      | Passed. | Failed.        | Total. |
|----------------------|---------|----------------|--------|
| Alabama .....        | 1       | 0              | 1      |
| Connecticut .....    | 2       | 2              | 4      |
| Illinois .....       | 1       | 0              | 1      |
| Iowa .....           | 0       | 2 <sup>1</sup> | 2      |
| Maine .....          | 1       | 0              | 1      |
| Maryland .....       | 13      | 2              | 15     |
| Massachusetts .....  | 6       | 9              | 15     |
| Montana .....        | 0       | 1 <sup>2</sup> | 1      |
| New Hampshire .....  | 5       | 0              | 5      |
| New Jersey .....     | 2       | 1              | 3      |
| New York .....       | 5       | 1 <sup>3</sup> | 6      |
| North Carolina ..... | 3       | 0              | 3      |
| North Dakota .....   | 1       | 0              | 1      |
| Pennsylvania .....   | 11      | 8 <sup>4</sup> | 19     |
| Vermont .....        | 1       | 0              | 1      |
| Virginia .....       | 1       | 0              | 1      |

### BALTIMORE UNIVERSITY SCHOOL OF MEDICINE.

(SEE VOL. IV, p. 536.)

#### Fees.—

Ticket for full course of lectures - - - - \$75.00

*Graduates in 1900.*—49, of whom one had an academic degree.

*Students enrolled 1899-1900.*—71, of whom 2 had academic degrees.

#### FACULTY.

*Drop:* E. W. Eilau, Ph.G., M.D.

*Add:* P. B. Wilson, M.D., *Chemistry and Toxicology*; J. A. Melvin, M.D., *Obstetrics*.

—Announcement for Session of 1900-1901.

<sup>1</sup> Same person failed twice.

<sup>2</sup> Class of 1898.

<sup>3</sup> Class of 1897; 3rd examination.

<sup>4</sup> Two 2nd and two 3rd examinations.

## STATE EXAMINATIONS, 1900.

|                      | Passed. | Failed.        | Total. |
|----------------------|---------|----------------|--------|
| Connecticut .....    | 0       | 1              | 1      |
| Delaware.....        | 2       | 1 <sup>1</sup> | 3      |
| Illinois.....        | 2       | 0              | 2      |
| Maine.....           | 3       | 0              | 3      |
| Maryland .....       | 2       | 3              | 5      |
| Massachusetts .....  | 2       | 2 <sup>2</sup> | 4      |
| New Jersey.....      | 4       | 6 <sup>3</sup> | 10     |
| New York....         | 17      | 8 <sup>4</sup> | 25     |
| Pennsylvania .....   | 1       | 9 <sup>5</sup> | 10     |
| South Carolina ..... | 2       | 0              | 2      |
| Virginia.....        | 1       | 1              | 2      |

## COLLEGE OF PHYSICIANS AND SURGEONS.

(SEE VOL. IV, p. 537.)

*Graduates in 1900.—35.**Students enrolled 1899-1900.—*

|                |   |   |   |   |   |   |   |     |
|----------------|---|---|---|---|---|---|---|-----|
| First year     | - | - | - | - | - | - | - | 60  |
| Second year    | - | - | - | - | - | - | - | 71  |
| Third "        | - | - | - | - | - | - | - | 60  |
| Fourth "       | - | - | - | - | - | - | - | 41  |
| Specials       | - | - | - | - | - | - | - | 62  |
| Post-graduates | - | - | - | - | - | - | - | 10  |
| Total          | - | - | - | - | - | - | - | 304 |

## FACULTY.

*Add: I. R. Trimble, M.D., Anatomy and Clinical Surgery; G. W. Dobbin, M.D., Obstetrics.*

—*Annual Announcement, 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Connecticut .....   | 0       | 2              | 2      |
| Iowa .....          | 1       | 0              | 1      |
| Maryland .....      | 13      | 1              | 14     |
| Massachusetts ..... | 5       | 3 <sup>6</sup> | 8      |
| Minnesota.....      | 1       | 0              | 1      |
| Montana .....       | 0       | 1 <sup>7</sup> | 1      |

<sup>1</sup> Class of 1898.<sup>2</sup> Class of 1899.<sup>3</sup> Two, 2d, one, 3rd, and one, 4th examinations.<sup>4</sup> One, class of 1898, 3rd examination; four, class of 1899; three, 2d examinations.<sup>5</sup> Three, 2d, one, 3rd, and one, 4th examinations.<sup>6</sup> Two, class of 1883.<sup>7</sup> Class of 1896.

|                   | Passed. | Failed.        | Total. |
|-------------------|---------|----------------|--------|
| New Jersey.....   | 2       | 0              | 2      |
| New York.....     | 3       | 0              | 3      |
| Ohio.....         | 1       | 0              | 1      |
| Pennsylvania..... | 3       | 2 <sup>1</sup> | 5      |
| Virginia.....     | 0       | 1              | 1      |

#### JOHNS HOPKINS UNIVERSITY, MEDICAL DEPARTMENT.

*Entrance Requirements.*—As candidates the school receives :

1. Those having completed the chemic-biologic course in this University, leading to the degree of A.B.
2. Graduates of approved colleges or scientific schools who show such knowledge of physics, chemistry, and biology as is given in minor courses in this University, with a fair reading knowledge of French and German and some acquaintance with Latin.
3. Those giving evidence of an education implied by a degree in arts or science, including the requisite knowledge of French, German, and Latin, physics, chemistry, and biology may be admitted upon examination.

*Length of Course.*—Four years, of eight and one-half months each.

#### *Fees.*—

|                                                           |   |   |   |   |   |          |
|-----------------------------------------------------------|---|---|---|---|---|----------|
| Tuition, each year                                        | - | - | - | - | - | \$200.00 |
| Caution (returnable)                                      | - | - | - | - | - | 10.00    |
| Microscope and lens, to those not owning them (each year) | - | - | - | - | - | 7.00     |

*Graduates in 1900.*—45, all having degrees in arts or science.

*Students enrolled 1899-1900.*—211, all having degrees in arts or science.

#### FACULTY.

D. C. Gilman, LL.D.

*President.*

W. H. Welch, M.D., LL.D.

*Pathology.*

Ira Remsen, M.D., Ph.D., LL.D.

*Chemistry.*

William Osler, M.D., LL.D.

*Principles and Practice of Medicine.*

H. M. Hurd, M.D., LL.D.

*Psychiatry.*

W. S. Halsted, M.D.

*Surgery.*

H. A. Kelly, M.D.

*Gynecology.*

F. P. Mall, M.D.

*Anatomy.*

J. J. Abel, M.D.

*Pharmacology.*

W. H. Howell, Ph.D., M.D., Dean.

*Physiology.*

W. K. Brooks, Ph.D., LL.D.

*Comparative Anatomy and Zoology.*

J. W. Williams, M.D.

*Obstetrics.*

<sup>1</sup> One, 2d examination.

## CLINICAL PROFESSORS.

|                                                            |                                                                            |
|------------------------------------------------------------|----------------------------------------------------------------------------|
| W. D. Booker, M.D.<br><i>Pediatrics.</i>                   | J. W. Lord, M.D.<br><i>Dermatology.</i>                                    |
| J. N. Mackenzie, M.D.<br><i>Laryngology and Rhinology.</i> | T. C. Gilchrist, M.R.C.S. (Eng.),<br>L.S.A. (Lond.)<br><i>Dermatology.</i> |
| Samuel Theobald, M.D.<br><i>Ophthalmology and Otology.</i> | H. J. Berkley, M.D.<br><i>Psychiatry.</i>                                  |
| H. M. Thomas, M.D.<br><i>Neurology.</i>                    |                                                                            |

## ASSOCIATE PROFESSORS.

|                                                |                                                |
|------------------------------------------------|------------------------------------------------|
| W. S. Thayer, M.D.<br><i>Medicine.</i>         | W. W. Russell, M.D.<br><i>Gynecology.</i>      |
| J. M. T. Finney, M.D.<br><i>Surgery.</i>       | T. S. Cullen, M.B.<br><i>Gynecology.</i>       |
| R. G. Harrison, Ph.D., M.D.<br><i>Anatomy.</i> | Reid Hunt, Ph.D., M.D.<br><i>Pharmacology.</i> |

## LECTURERS.

|                                                                           |                                                              |
|---------------------------------------------------------------------------|--------------------------------------------------------------|
| J. S. Billings, M.D., LL.D.<br><i>History and Literature of Medicine.</i> | A. C. Abbott, M.D.<br><i>Hygiene.</i>                        |
| C. W. Stiles, Ph.D., M.S.<br><i>Medical Zoology.</i>                      | Robert Fletcher, M.R.C.S., M.D.<br><i>Forensic Medicine.</i> |

## ASSOCIATES.

|                                                           |                                                                     |
|-----------------------------------------------------------|---------------------------------------------------------------------|
| R. L. Randolph, M.D.<br><i>Ophthalmology and Otology.</i> | G. W. Dobbin, M.D.<br><i>Obstetrics.</i>                            |
| T. B. Fletcher, M.B.<br><i>Medicine.</i>                  | Walter Jones, Ph.D.<br><i>Physiologic Chemistry and Toxicology.</i> |
| J. C. Bloodgood, M.D.<br><i>Surgery.</i>                  | N. M. Harris, M.B.<br><i>Bacteriology.</i>                          |
| C. R. Bardeen, M.D.<br><i>Anatomy.</i>                    | W. G. MacCallum, M.D.<br><i>Pathology.</i>                          |
| H. W. Cushing, M.D.<br><i>Surgery.</i>                    |                                                                     |

## INSTRUCTORS.

|                                                      |                                          |
|------------------------------------------------------|------------------------------------------|
| F. R. Smith, M.D.<br><i>Medicine.</i>                | E. L. Opie, M.D.<br><i>Pathology.</i>    |
| H. B. Jacobs, M.D.<br><i>Medicine.</i>               | P. M. Dawson, M.D.<br><i>Physiology.</i> |
| H. H. Young, M.D.<br><i>Genito-urinary Diseases.</i> | M. T. Sudler, Ph.D.<br><i>Anatomy.</i>   |
| Thomas McCrae, M.D.<br><i>Medicine.</i>              | C. P. Emerson, M.D.<br><i>Medicine.</i>  |
| H. McE. Knower, Ph.D.<br><i>Anatomy.</i>             | George Walker, M.D.<br><i>Surgery.</i>   |

## ASSISTANTS.

|                                                       |                                                |
|-------------------------------------------------------|------------------------------------------------|
| Stewart Paton, M.D.<br><i>Clinical Neurology.</i>     | W. H. Lewis, M.D.<br><i>Obstetrics.</i>        |
| Elizabeth Hurdon, M.D.<br><i>Gynecology.</i>          | F. W. Lynch, M.D.<br><i>Obstetrics.</i>        |
| H. O. Reik, M.D.<br><i>Ophthalmology and Otology.</i> | W. S. Baer, M.D.<br><i>Orthopedic Surgery.</i> |
| L. P. Hamburger, M.D.<br><i>Medicine.</i>             | Joseph Erlanger, M.D.<br><i>Physiology.</i>    |
| H. T. Marshall, M.D.<br><i>Pathology.</i>             | H. W. Buckler, M.D.<br><i>Obstetrics.</i>      |
| J. B. MacCallum, M.D.<br><i>Anatomy.</i>              | Samuel Amberg, M.D.<br><i>Pediatrics.</i>      |

—8th Annual Catalogue and Announcement, 1900-1901.

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| Alabama .....       | 1       | 0       | 1      |
| Connecticut .....   | 3       | 0       | 3      |
| Maryland .....      | 7       | 0       | 7      |
| Massachusetts ..... | 2       | 0       | 2      |
| New York .....      | 6       | 0       | 6      |
| Pennsylvania .....  | 4       | 0       | 4      |
| Virginia .....      | 0       | 1       | 1      |

## MARYLAND MEDICAL COLLEGE.

(SEE VOL. IV, p. 542.)

*Graduates in 1900.*—44, of whom 2 had academic degrees.

*Students enrolled 1899-1900.*—93, of whom 5 had academic degrees.

## FACULTY.

*Drop:* E. A. Munoz, Ph.G., M.D., Haughton Baxley, M.D., Pearce Kintzing, B.Sc., M.D., S. G. Davis, M.D.

*Add:* C. U. Smith, A.B., Ph.G., M.D., *Principles and Practice of Medicine and Diseases of the Stomach*; Harry Gross, M.D., *Operative and Clinical Surgery*; E. E. Quandt, Ph.G., *Chemistry and Toxicology*.

—Announcement, 1900-1901.

## STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed.        | Total. |
|--------------------|---------|----------------|--------|
| Maine .....        | 1       | 0              | 1      |
| Maryland .....     | 6       | 5              | 11     |
| New Jersey .....   | 0       | 1              | 1      |
| New York .....     | 1       | 1 <sup>1</sup> | 2      |
| Pennsylvania ..... | 3       | 5 <sup>2</sup> | 8      |
| Virginia .....     | 0       | 1              | 1      |

<sup>1</sup> Class of 1899.

<sup>2</sup> One, 2d examination.



## BALTIMORE.

## SOUTHERN HOMEOPATHIC MEDICAL COLLEGE.

(SEE VOL. IV, p. 543.)

*Length of Course.*—Four years, of seven months each.*Graduates in 1900.*—5.*Students enrolled 1899-1900.*—27.—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                | Passed. | Failed. | Total. |
|----------------|---------|---------|--------|
| Maryland ..... | 6       | 0       | 6      |
| Virginia ..... | 1       | 1       | 2      |

## UNIVERSITY OF MARYLAND, SCHOOL OF MEDICINE.

*Entrance Requirements.*—Examination in English, composition of at least 200 words ; Latin, equivalent of one year's study ; algebra ; higher arithmetic ; elementary physics. Matriculates and graduates of recognized colleges, graduates of first-grade high schools, state normal schools, or those having passed the regents' examination provided by the statute of New York shall be exempt from this examination.

*Length of Course.*—Four years, of seven months each.*Fees.*—

|                              |   |   |   |   |         |
|------------------------------|---|---|---|---|---------|
| Matriculation, each year     | - | - | - | - | \$ 5.00 |
| Tuition, each year           | - | - | - | - | 100.00  |
| Anatomy, for two years, each | - | - | - | - | 10.00   |
| Laboratory, each year        | - | - | - | - | 5.00    |
| Graduation                   | - | - | - | - | 30.00   |

*Graduates in 1900.*—65.*Students enrolled 1899-1900.*—

|                      | Number. | Academic degrees. |
|----------------------|---------|-------------------|
| Special students     | 10      | ..                |
| Fourth-year students | 81      | 7                 |
| Third-year           | 74      | 2                 |
| Second-year          | 77      | 8                 |
| First-year           | 77      | 9                 |
| Total                | 319     | 26                |

## FACULTY.

Bernard Carter, L.L.D.

*Provost.*

G. W. Miltenberger, M.D.

*(Emeritus) Obstetrics.*

S. C. Chew, M.D.

*Principles and Practice of Medicine and Clinical Medicine.*

- |                                                                                                        |                                                                                           |
|--------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| W. T. Howard, M.D.<br>( <i>Emeritus</i> ) <i>Diseases of Women and Children and Clinical Medicine.</i> | R. D. Coale, Ph.D.<br><i>Chemistry and Toxicology.</i>                                    |
| J. J. Chisolm, M.D., L.L.D.<br>( <i>Emeritus</i> ) <i>Eye and Ear Diseases.</i>                        | Randolph Winslow, M.D.<br><i>Anatomy and Clinical Surgery.</i>                            |
| F. T. Miles, M.D.<br><i>Physiology and Nervous Diseases.</i>                                           | L. E. Neale, M.D.<br><i>Obstetrics.</i>                                                   |
| L. McL. Tiffany, M.D.<br><i>Surgery.</i>                                                               | C. W. Mitchell, M.D.<br><i>Therapeutics, Diseases of Children, and Clinical Medicine.</i> |
| I. E. Atkinson, M.D.<br>( <i>Emeritus</i> ) <i>Therapeutics and Clinical Medicine.</i>                 | T. A. Ashby, M.D.<br><i>Diseases of Women.</i>                                            |

## OTHER INSTRUCTORS.

*Eye and Ear Diseases*, Hiram Woods, Jr., M.D., F. M. Chisolm, M.D., E. E. Gibbons, M.D.; *Anatomy*, J. Holmes Smith, M.D., John Turner, Jr., M.D., W. A. Duvall, M.D., A. T. Chambers, M.D., Compton Riely, M.D., H. W. Kennard, M.D.; *Dermatology*, T. C. Gilchrist, M.B.; *Diseases of Women*, J. M. Hundley, M.D., H. H. Arthur, M.D.; *Materia Medica and Pharmacognosy*, D. M. R. Culbreth, M.D.; *Diseases of the Stomach*, J. C. Hemmeter, M.D., Ph.D.; *Medical Jurisprudence*, J. T. Smith, M.D.; *Pathology and Bacteriology*, W. R. Stokes, M.D., Robert Reuling, M.D., Harry Adler, M.D., S. Demarco, M.D.; *Medicine*, J. S. Fulton, M.D., M. C. Robins, M.D., J. E. Gichner, M.D., J. M. Craighill, M.D., A. D. Atkinson, M.D.; *Surgery*, Frank Martin, M.D., B. B. Lanier, M.D., St. Clair Spruill, M.D., J. G. Jay, M.D., J. W. Holland, M.D., H. M. Fitzhugh, M.D.; *Obstetrics*, L. M. Allen, M.D.; *Histology and Embryology*, J. L. Hirsh, M.D., M. R. Walter, M.D., H. C. Hyde, M.D., Howard Kahn, M.D.; *Physiology*, W. I. Messick, M.D.; *Genito-urinary Diseases*, S. B. Bond, M.D.; *Diseases of the Throat and Nose*, Hughlett Hardcastle, M.D., E. V. Milholland, M.D.; *Chemistry*, F. A. Hancock, A.B.

—94th Annual Announcement Session of 1900–1901.

## STATE EXAMINATIONS, 1900.

|                           | Passed. | Failed.        | Total. |
|---------------------------|---------|----------------|--------|
| Delaware .....            | 2       | 0              | 2      |
| District of Columbia..... | 0       | 1 <sup>1</sup> | 1      |
| Maryland .....            | 41      | 4              | 45     |
| Massachusetts .....       | 1       | 0              | 1      |
| New Jersey .....          | 1       | 0              | 1      |
| North Carolina .....      | 9       | 1              | 10     |
| Pennsylvania .....        | 4       | 0              | 4      |
| South Carolina .....      | 2       | 0              | 2      |
| Virginia.....             | 8       | 1              | 9      |

## WOMAN'S MEDICAL COLLEGE.

(SEE VOL. IV, p. 541.)

*Graduates in 1900.*—4.

*Students enrolled 1899–1900.*—25, of whom 4 had academic degrees.

<sup>1</sup> Class of 1865.

## FACULTY.

*Drop* : I. R. Trimble, M.D., E. N. Brush, M.D.

*Add* : J. G. Lee, B.A., LL.B., *Medical Jurisprudence* ; R. H. Thomas, M.D., *Diseases of the Nose, Throat, and Chest* ; J. C. Clark, M.D., *Psychiatry* ; A. D. Atkinson, M.D., *Diseases of Children* ; M. Ekstromer, M.D., *Chemistry*.

—*Announcement and Catalogue, 1900-1901.*

## STATE EXAMINATIONS, 1900.

(None reported.)

## MASSACHUSETTS.

(SEE VOL. II, p. 739.)

The fitness to practice medicine in Massachusetts is determined solely by the board of examiners. Any one who is 21 years old and of good moral character may appear before the board for an examination.

*Executive Officer of the Board.*—Dr. Edwin B. Harvey, Secretary, State House, Boston.

## EXAMINATIONS, 1900.

| Name of college.                                        | Passed. | Failed.        | Total. |
|---------------------------------------------------------|---------|----------------|--------|
| <b>CALIFORNIA.</b>                                      |         |                |        |
| Cooper Medical College .....                            | 0       | 1 <sup>1</sup> | 1      |
| <b>CONNECTICUT.</b>                                     |         |                |        |
| Yale University, Medical Department .....               | 6       | 0              | 6      |
| <b>DISTRICT OF COLUMBIA.</b>                            |         |                |        |
| Georgetown University, School of Medicine .....         | 1       | 0              | 1      |
| <b>ILLINOIS.</b>                                        |         |                |        |
| Hahnemann Medical College and Hospital of Chicago ..... | 0       | 1 <sup>2</sup> | 1      |
| <b>MAINE.</b>                                           |         |                |        |
| Medical Department of Bowdoin College .....             | 7       | 2 <sup>3</sup> | 9      |
| <b>MARYLAND.</b>                                        |         |                |        |
| Baltimore Medical College .....                         | 6       | 9              | 15     |
| Baltimore University School of Medicine .....           | 2       | 2 <sup>4</sup> | 4      |
| College of Physicians and Surgeons .....                | 5       | 3 <sup>5</sup> | 8      |
| Johns Hopkins University, Medical Department....        | 2       | 0              | 2      |
| University of Maryland, School of Medicine .....        | 1       | 0              | 1      |

<sup>1</sup> Class of 1894.

<sup>2</sup> Class of 1892.

<sup>3</sup> One each, classes 1895, 1899.

<sup>4</sup> Two, class of 1899.

<sup>5</sup> Two, class of 1883.

| Name of college.                                                    | Passed. | Failed.         | Total. |
|---------------------------------------------------------------------|---------|-----------------|--------|
| <b>MASSACHUSETTS.</b>                                               |         |                 |        |
| Medical School of Harvard University .....                          | 72      | 2 <sup>1</sup>  | 74     |
| College of Physicians and Surgeons .....                            | 1       | 0               | 1      |
| Boston University, School of Medicine .....                         | 29      | 4 <sup>2</sup>  | 33     |
| Tufts College Medical School.....                                   | 30      | 5 <sup>3</sup>  | 35     |
| <b>MICHIGAN.</b>                                                    |         |                 |        |
| University of Michigan, Department of Medicine<br>and Surgery ..... | 5       | 0               | 5      |
| <b>NEW HAMPSHIRE.</b>                                               |         |                 |        |
| Dartmouth College, Medical School.....                              | 9       | 4 <sup>4</sup>  | 13     |
| <b>NEW YORK.</b>                                                    |         |                 |        |
| Albany Medical College .....                                        | 4       | 2 <sup>5</sup>  | 6      |
| Long Island College Hospital.....                                   | 2       | 1 <sup>6</sup>  | 3      |
| College of Physicians and Surgeons (Columbia) ...                   | 1       | 1               | 2      |
| University of the City of New York, Medical Department.....         | 1       | 3 <sup>7</sup>  | 4      |
| The University and Bellevue Hospital Medical College.....           | 1       | 0               | 1      |
| <b>OHIO.</b>                                                        |         |                 |        |
| Laura Memorial Woman's Medical College .....                        | 1       | 0               | 1      |
| Medical College of Western Reserve University ....                  | 1       | 0               | 1      |
| <b>PENNSYLVANIA.</b>                                                |         |                 |        |
| University of Pennsylvania, Medical Department ..                   | 5       | 0               | 5      |
| Jefferson Medical College.....                                      | 1       | 0               | 1      |
| Woman's Medical College of Pennsylvania .....                       | 4       | 0               | 4      |
| Medico-Chirurgical College of Philadelphia.....                     | 1       | 0               | 1      |
| Hahnemann Medical College and Hospital.....                         | 5       | 1 <sup>8</sup>  | 6      |
| <b>TENNESSEE.</b>                                                   |         |                 |        |
| University of the South, Medical Department.....                    | 0       | 3 <sup>9</sup>  | 3      |
| <b>VERMONT.</b>                                                     |         |                 |        |
| Medical Department, University of Vermont .....                     | 12      | 3 <sup>10</sup> | 15     |
| <b>VIRGINIA.</b>                                                    |         |                 |        |
| University College of Medicine.....                                 | 1       | 0               | 1      |
| <b>CANADA.</b>                                                      |         |                 |        |
| Laval University, Medical Department .....                          | 4       | 6 <sup>11</sup> | 10     |
| McGill University, Medical Department.....                          | 2       | 0               | 2      |

<sup>1</sup> One, class of 1894.<sup>2</sup> Two, class of 1899.<sup>3</sup> One, class of 1896; two each, classes 1897, 1899.<sup>4</sup> One, class of 1897.<sup>5</sup> One each, classes 1892, 1894.<sup>6</sup> Class of 1896.<sup>7</sup> One each, classes 1886, 1887, 1890.<sup>8</sup> Class of 1898.<sup>9</sup> One, class of 1899.<sup>10</sup> One each, classes 1893, 1895, 1899.<sup>11</sup> One each, classes 1894, 1899.

| Name of college.                    | Passed.   | Failed.        | Total.    |
|-------------------------------------|-----------|----------------|-----------|
| Medical Schools not Specified ..... | 5         | 1 <sup>1</sup> | 6         |
| <b>FOREIGN.</b>                     |           |                |           |
| Medical Schools not Specified ..... | 4         | 1 <sup>2</sup> | 5         |
|                                     | <hr/> 231 | <hr/> 55       | <hr/> 286 |

## BOSTON.

## BOSTON UNIVERSITY SCHOOL OF MEDICINE.

(SEE VOL. IV, p. 548.)

*Graduates in 1900.*—With the degree of M.D., 35, of whom 5 had academic degrees; with the degree of Ch.B., 4.

*Students enrolled 1900.*—

|                             | Number.   | Academic degrees. |
|-----------------------------|-----------|-------------------|
| Graduate students - - - - - | 4         | 0                 |
| Fourth year " - - - - -     | 39        | 6                 |
| Third " " - - - - -         | 25        | 3                 |
| Second " " - - - - -        | 35        | 4                 |
| First " " - - - - -         | 41        | 2                 |
| Special " " - - - - -       | 6         | 0                 |
| Total - - - - -             | <hr/> 150 | <hr/> 15          |

—28th Annual Announcement, July, 1900.

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Maine.....          | 4       | 0              | 4      |
| Massachusetts ..... | 29      | 4 <sup>3</sup> | 33     |
| New Hampshire.....  | 6       | 0              | 6      |
| New York.....       | 2       | 0              | 2      |
| Pennsylvania .....  | 1       | 0              | 1      |

## COLLEGE OF PHYSICIANS AND SURGEONS.

*Entrance Requirements.*—An examination in *English* (a composition on an assigned topic, written at the time of the examination, of at least 200 words); *arithmetic* (through ratio and proportion); *algebra* (through quadratics); *physics* (elements); *Latin* (equivalent to one year's study). Official certificates of reputable colleges, academies, high and normal schools, and certificates of state examining boards may be accepted in place of this examination.

*Length of Course.*—Four years, of nine months each, divided into two semesters of 300 recitation periods each.

<sup>1</sup> Class of 1873.

<sup>2</sup> Class of 1899.

<sup>3</sup> Two, class of 1899.

**Fees:—**

|                                               |   |   |   |   |         |
|-----------------------------------------------|---|---|---|---|---------|
| Matriculation, each year                      | - | - | - | - | \$ 5.00 |
| Tuition, first year                           | - | - | - | - | 75.00   |
| Tuition, second, third and fourth years, each | - | - | - | - | 100.00  |
| Tuition for the four years, in advance        | - | - | - | - | 300.00  |
| Graduation                                    | - | - | - | - | 30.00   |
| Laboratory                                    | - | - | - | - | 5.00    |

*Graduates in 1900.—7.**Students enrolled 1899-1900.—101.***FACULTY.**

|                                                                                                |                                                                                                                             |
|------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| J. E. Grinfield-Coxwell, L.R.C.P.<br>(Ireland), M.R.C.S. (Eng.).<br><i>Anatomy.</i>            | G. N. Munsell, M.D.<br><i>Medical Jurisprudence.</i>                                                                        |
| J. S. Flagg, A.M., M.D., LL.B.<br><i>Biology and Embryology. (Instructor in Anthropology.)</i> | J. H. Jackson, A.M., M.D., Registrar,<br>John Gilbert, M.D.<br>W. H. Deane, M.D.<br><i>Theory and Practice of Medicine.</i> |
| E. D. Hooper, M.D.<br><i>Medical Chemistry and Toxicology.</i>                                 | Eugene Wason, M.D.<br><i>Obstetrics.</i>                                                                                    |
| Ephraim Cutter, A.M., M.D., LL.D.<br><i>Clinical Morphology and Applied Medicine.</i>          | C. H. May, M.D.<br>O. H. Jackson, M.D.<br><i>Ophthalmology and Otology.</i>                                                 |
| F. P. McKenna, M.D.<br><i>Physical Diagnosis.</i>                                              | F. M. Harrington, M.D.<br><i>Pediatrics.</i>                                                                                |
| A. P. Clarke, A.M., M.D., Dean.<br><i>Gynecology and Abdominal Surgery.</i>                    | G. B. Morse, M.D., Ph.D.<br><i>Pathology and Bacteriology.</i>                                                              |
| A. E. Miller, M.D.<br><i>Hygiene.</i>                                                          | R. W. Jackson, A.B., M.D.<br><i>Physiology.</i>                                                                             |
| Charles H. Cobb, M.D.                                                                          | F. L. Burt, Ph.B., M.D.                                                                                                     |
| Maurice Gerstein, M.D.<br><i>Materia Medica and Therapeutics.</i>                              | F. S. Bennett, M.D.<br>D. T. O'Keefe, M.D.<br><i>Surgery.</i>                                                               |

**OTHER INSTRUCTORS.**

*Bacteriology and Physiology*, A. H. Thomasson, A.B., M.D.; *General Chemistry*, W. B. McVey, Ph.C., F.C.S. (Lond.); *Clinics*, E. W. Young, M.D.; *Histology*, W. T. Clarke, M.D., T. H. O'Toole, M.D.; *Jurisprudence*, H. F. Parker, Esq.; *Materia Medica and Physiologic Chemistry*, I. E. Leonard, Ph.G., M.D.

—*Quarterly Announcement, Autumn, 1900.***STATE EXAMINATIONS, 1900.**

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| Massachusetts ..... | I       | 0       | I      |
| New York .....      | I       | 0       | I      |

**THE MEDICAL SCHOOL OF HARVARD UNIVERSITY.**

(SEE VOL. IV, p. 544.)

*Drop:* (Association of American Medical Colleges).*Graduates in 1900.—130, of whom 70 had academic degrees.**Students enrolled 1899-1900.—*

|                                    | Number. | Academic degrees. |
|------------------------------------|---------|-------------------|
| In courses for graduates - - - - - | 14      | 4                 |
| Fourth class - - - - -             | 115     | 52                |
| Third " - - - - -                  | 125     | 63                |
| Second " - - - - -                 | 153     | 51                |
| First " - - - - -                  | 198     | 69                |
| Total - - - - -                    | 605     | 239               |

—*University Catalogue, 1900-1901.*

### STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Arizona .....       | 1       | 0              | 1      |
| Illinois.....       | 1       | 0              | 1      |
| Maine.....          | 4       | 0              | 4      |
| Massachusetts ..... | 72      | 2 <sup>1</sup> | 74     |
| New Hampshire ....  | 4       | 0              | 4      |
| New Jersey.....     | 2       | 0              | 2      |
| New York.....       | 2       | 1 <sup>2</sup> | 3      |
| North Carolina..... | 1       | 0              | 1      |
| Pennsylvania .....  | 2       | 2              | 4      |
| Vermont .....       | 1       | 0              | 1      |

### TUFTS COLLEGE MEDICAL SCHOOL.

(SEE VOL. IV, p. 550.)

#### Fees.—

|                                     |         |
|-------------------------------------|---------|
| Matriculation, each year - - - - -  | \$ 5.00 |
| Tuition three years, each - - - - - | 120.00  |
| Tuition, last year - - - - -        | 90.00   |
| Graduation - - - - -                | 30.00   |

*Graduates in 1900.—33.*

*Students enrolled 1900-1901.—*

|                      | Number. | Academic degrees. |
|----------------------|---------|-------------------|
| Seniors - - - - -    | 30      | 1                 |
| Juniors - - - - -    | 54      | 2                 |
| Sophomores - - - - - | 77      | 2                 |
| Freshmen - - - - -   | 103     | 2                 |
| Specials - - - - -   | 8       | 0                 |
| Total - - - - -      | 272     | 7                 |

### FACULTY.

H. B. Chandler, M.D., has taken the place of J. A. Tenney, M.D., in *Ophthalmology*.

*Drop:* T. M. Durell, M.D., and C. G. Cumston, B.M.S., M.D.

*Add:* H. D. Arnold, A.B., M.D., *Clinical Medicine*.

—*Catalogue for Session of 1900-1901.*

<sup>1</sup> One, class of 1894.

<sup>2</sup> Class of 1897.

## STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed.        | Total. |
|--------------------|---------|----------------|--------|
| Illinois.....      | 1       | 0              | 1      |
| Maine.....         | 1       | 0              | 1      |
| Massachusetts..... | 30      | 5 <sup>1</sup> | 35     |
| New Hampshire..... | 1       | 0              | 1      |
| New York.....      | 1       | 0              | 1      |
| Pennsylvania.....  | 1       | 0              | 1      |
| Vermont.....       | 1       | 0              | 1      |

## MICHIGAN.

(SEE VOL. IV, p. 726.)

To enter upon the practice of medicine in Michigan, the candidate must present evidence to the board of registration that he is a graduate of a medical school approved by the board or, in default of this, pass an examination.

*Executive Officer of the Board.*—Dr. B. D. Harrison, Secretary, Sault Ste. Marie.

## ANN ARBOR.

## HOMEOPATHIC MEDICAL COLLEGE OF THE UNIVERSITY OF MICHIGAN.

(SEE VOL. IV, p. 553.)

*Graduates.*—Not given in the announcement.

*Students enrolled.*—Not given in the announcement.

## FACULTY.

*Add:* A. B. Prescott, Ph.D., M.D., *Organic Chemistry*; V. C. Vaughan, Ph.D., M.D., *Hygiene and Physiologic Chemistry*; O. C. Johnson, A.M., Ph.C., *Analytic Chemistry*; P. C. Freer, Ph.D., M.D., *General Chemistry*; W. P. Lombard, A.B., M.D., *Physiology*; J. P. McMurrick, A.M., Ph.D., *Anatomy*; E. F. Johnson, B.S., LL.M., *Medical Jurisprudence*.

—*Annual Announcement for Session of 1900-1901.*

## STATE EXAMINATION, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Illinois..... | 1       | 0       | 1      |

UNIVERSITY OF MICHIGAN, DEPARTMENT OF MEDICINE AND SURGERY.

*Entrance Requirements.*—Credentials must be presented that the applicant has successfully pursued the studies required, or the applicant must submit to an examination upon them. *English language*, grammar, rhetoric and composition; *History*,

<sup>1</sup> One, class of 1896; two each, classes 1897, 1899.



United States, general, or Greek and Roman, or English; *Mathematics*, algebra, through quadratics, plane geometry, plane trigonometry (may enter with a condition in trigonometry); *Natural Sciences*, physics, general biology, or botany and zoology, chemistry (may be conditioned on two of these subjects); *Modern languages*, either German or French (optional, but if not taken must be made up); *Latin* grammar, pure composition, four books of Caesar (this also may be conditioned upon entering). Students entering with too many conditions will not be able to complete the medical course under five years.

*Length of Course.*—Four college years of nine months each.  
*Fees.*—

Matriculation, paid but once

|                       |   |   |   |   |         |
|-----------------------|---|---|---|---|---------|
| For Michigan students | - | - | - | - | \$10.00 |
| For all others        | - | - | - | - | 25.00   |

Tuition, each year.

|                       |   |   |   |   |       |
|-----------------------|---|---|---|---|-------|
| For Michigan students | - | - | - | - | 35.00 |
| For all others        | - | - | - | - | 45.00 |
| Diploma, all alike    | - | - | - | - | 10.00 |

The required laboratory and demonstration courses cost approximately as follows :

|                                   |   |   |   |   |   |         |
|-----------------------------------|---|---|---|---|---|---------|
| Anatomy                           | - | - | - | - | - | \$20.00 |
| Chemistry                         | - | - | - | - | - | 15.00   |
| Bacteriology                      | - | - | - | - | - | 15.00   |
| Physiologic chemistry             | - | - | - | - | - | 15.00   |
| Histology                         | - | - | - | - | - | 7.00    |
| Electrotherapeutics               | - | - | - | - | - | 8.00    |
| Pathology                         | - | - | - | - | - | 10.00   |
| Operative Surgery                 | - | - | - | - | - | 10.00   |
| Demonstration course, medicine    | - | - | - | - | - | 10.00   |
| " " obstetrics                    | - | - | - | - | - | 10.00   |
| " " nervous diseases              | - | - | - | - | - | 10.00   |
| " " laryngology and ophthalmology | - | - | - | - | - | 10.00   |

The total amount paid for fees during the four years approximates \$300.00 for Michigan students, and \$355.00 for others.

*Graduates in 1899.*—87, of whom 27 had academic degrees.

*Students enrolled 1899-1900.*—

|                    | Number. | Academic degrees. |
|--------------------|---------|-------------------|
| Resident graduates | 7       | 1                 |
| Seniors            | 96      | 22                |
| Juniors            | 90      | 26                |
| Sophomores         | 124     | 25                |
| Freshmen           | 161     | 16                |
| Total              | 478     | 90                |

## COMBINED COURSE IN COLLEGIATE AND MEDICAL STUDIES.

|            |   |   |   |   |   |   |   |    |
|------------|---|---|---|---|---|---|---|----|
| Sophomores | - | - | - | - | - | - | - | 12 |
| Freshmen   | - | - | - | - | - | - | - | 10 |

## FACULTY.

|                                                                                                              |                                                                                                        |
|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|
| J. B. Angell, LL.D.<br><i>President.</i>                                                                     | O. C. Johnson, A.M., Ph.C.<br><i>Analytic Chemistry.</i>                                               |
| A. B. Prescott, Ph.D., M.D., LL.D.<br><i>Organic Chemistry.</i>                                              | P. C. Freer, Ph.D., M.D.<br><i>General Chemistry.</i>                                                  |
| W. J. Herdman, Ph.B., M.D., LL.D.<br><i>Diseases of the Mind and Nervous System and Electrotherapeutics.</i> | J. N. Martin, Ph.M., M.D.<br><i>Obstetrics and Diseases of Women.</i>                                  |
| V. C. Vaughan, Ph.D., Sc.D., M.D., LL.D., Dean.<br><i>Hygiene and Physiologic Chemistry.</i>                 | George Dock, A.M., M.D.<br><i>Theory and Practice of Medicine and Clinical Medicine and Pathology.</i> |
| C. B. Nancrede, A.M., M.D., LL.D.<br><i>Surgery and Clinical Surgery.</i>                                    | W. P. Lombard, A.B., M.D.<br><i>Physiology.</i>                                                        |
| Flemming Carrow, M.D.<br><i>Ophthalmic and Aural Surgery, Laryngology, and Clinical Ophthalmology.</i>       | A. R. Cushing, A.M., M.D.<br><i>Materia Medica and Therapeutics.</i>                                   |
|                                                                                                              | J. P. McMurrick, A.M., Ph.D.<br><i>Anatomy.</i>                                                        |

## JUNIOR PROFESSORS.

|                                                                      |                                                    |
|----------------------------------------------------------------------|----------------------------------------------------|
| F. G. Novy, Sc.D., M.D.<br><i>Hygiene and Physiologic Chemistry.</i> | G. C. Huber, M.D.<br><i>Anatomy and Histology.</i> |
|----------------------------------------------------------------------|----------------------------------------------------|

## ASSISTANT PROFESSORS.

|                                                            |                                                   |
|------------------------------------------------------------|---------------------------------------------------|
| A. S. Warthin, Ph.D., M.D.<br><i>Pathology.</i>            | Moses Gomberg, Sc.D.<br><i>Organic Chemistry.</i> |
| J. O. Schlotterbeck, Ph.C., Ph.D.<br><i>Pharmacognosy.</i> |                                                   |

## LECTURERS.

|                                                                 |                                                             |
|-----------------------------------------------------------------|-------------------------------------------------------------|
| W. F. Breakey, M.D.<br><i>Dermatology and Syphilology.</i>      | E. F. Johnson, B.S., LL.M.<br><i>Medical Jurisprudence.</i> |
| C. G. Darling, M.D.<br><i>Genito-urinary and Minor Surgery.</i> | A. B. Stevens, Ph.C.<br><i>Pharmacy.</i>                    |

## INSTRUCTORS.

|                                                 |                                                        |
|-------------------------------------------------|--------------------------------------------------------|
| G. O. Higley, M.S.<br><i>General Chemistry.</i> | P. F. Trowbridge, Ph.B.<br><i>Organic Chemistry.</i>   |
| D. M. Lichty, M.S.<br><i>Physics.</i>           | J. R. Arneill, A.B., M.D.<br><i>Internal Medicine.</i> |
| S. M. Yutzy, M.D.<br><i>Osteology.</i>          | R. C. Bourland, A.B., M.D.<br><i>Anatomy.</i>          |
| H. H. Wait, A.B.<br><i>Bacteriology.</i>        | B. F. Bailey, B.S.<br><i>Electrotherapeutics.</i>      |

## DEMONSTRATORS.

|                                                                                                            |                                                                           |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| J. G. Lynds, M.D.<br><i>Obstetrics and Diseases of Women.</i>                                              | Jeanne C. Solis, M.D.<br><i>Nervous Diseases and Electrotherapeutics.</i> |
| O. A. Griffin, B.S., M.D.<br><i>Ophthalmic and Aural Surgery, and Clinical Ophthalmology, and Otology.</i> |                                                                           |

## ASSISTANTS.

T. B. Cooley, A.B., M.D.

*Hygiene.*

C. L. Bliss, B.S.

*Physiologic Chemistry.*

A. E. Guenther, B.S.

*Physiology.*

Lydia M. DeWitt, M.D., B.S.

*Histology.*

F. A. Baldwin, M.D.

*Pathology.*

B. K. Van Naten, M.D.

*Pharmacology.*

G. L. Noyes, M.D.

*Ophthalmology and Otology.*

Theophil Klingman, Ph.C., M.D.

*Diseases of the Mind and Nervous System.*

J. F. Breakey, M.D.

*Dermatology.*

C. W. Johnson, Ph.C.

*Qualitative Analysis.*

H. N. Cole.

*Qualitative Analysis.*

G. M. Heath, Ph.C.

*Pharmacy.*

D. M. Cowie, M.D.

*Internal Medicine.*

W. H. Hutchings, B.L., M.D.

*Surgery.*

J. J. Mersén, A.M., M.D.

*Obstetrics and Gynecology.*

T. B. Burr, A.B., M.D.

*Surgery.*

Clara Oswald-Dedrick, M.D.

*Obstetrics and Gynecology.*

Conrad George, A.B., M.D.

*Surgery.*

## ASSISTANT DEMONSTRATORS IN ANATOMY.

H. M. Doolittle, E. A. Willis, A. G. Geiger, V. E. Powell.

## SPECIAL APPOINTMENTS FOR THE YEAR 1900-1901. SPECIAL LECTURERS.

H. B. Baker, A.M., M.D., Secretary, Michigan State Board of Health, *Administration of Health Laws*; W. M. Edwards, M.D., Superintendent of Michigan Asylum, *Insanity*; J. D. Munson, M.D., Superintendent of Northern Michigan Asylum, *Insanity*; E. A. Christian, A.B., M.D., Superintendent of Eastern Michigan Asylum, *Insanity*; G. L. Chamberlain, M.D., Superintendent of Newberry Asylum, *Insanity*.

—*Annual Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                           | Passed. | Failed.        | Total. |
|---------------------------|---------|----------------|--------|
| Connecticut .....         | 1       | 0              | 1      |
| District of Columbia..... | 1       | 0              | 1      |
| Illinois.....             | 4       | 0              | 4      |
| Iowa.....                 | 6       | 0              | 6      |
| Maine.....                | 1       | 0              | 1      |
| Maryland.....             | 1       | 0              | 1      |
| Massachusetts.....        | 5       | 0              | 5      |
| Minnesota.....            | 4       | 1 <sup>1</sup> | 5      |
| Montana.....              | 3       | 0              | 3      |
| New Hampshire.....        | 1       | 0              | 1      |
| New Jersey.....           | 1       | 0              | 1      |
| New York.....             | 6       | 0              | 6      |
| North Carolina.....       | 1       | 0              | 1      |
| Pennsylvania.....         | 3       | 0              | 3      |

<sup>1</sup> Class of 1883.

## DETROIT COLLEGE OF MEDICINE.

(SEE VOL. IV, p. 554.)

*Graduates in 1900.*—56.*Students enrolled 1899-1900.*—

|              |   |   |   |   |   |   |   |     |
|--------------|---|---|---|---|---|---|---|-----|
| Fourth class | - | - | - | - | - | - | - | 58  |
| Third class  | - | - | - | - | - | - | - | 44  |
| Second class | - | - | - | - | - | - | - | 61  |
| First class  | - | - | - | - | - | - | - | 63  |
| Total        | - | - | - | - | - | - | - | 226 |

## FACULTY.

*Drop:* E. T. Tappey, M.D. F. W. Robbins, M.D., is now full professor of *Genito-urinary Diseases*.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                   | Passed. | Failed.        | Total. |
|-------------------|---------|----------------|--------|
| Alabama .....     | 1       | 0              | 1      |
| Illinois.....     | 0       | 1              | 1      |
| Montana .....     | 0       | 1 <sup>1</sup> | 1      |
| New York.....     | 0       | 1              | 1      |
| North Dakota..... | 3       | 0              | 3      |
| Oregon.....       | 1       | 0              | 1      |

## MICHIGAN COLLEGE OF MEDICINE AND SURGERY.

(SEE VOL. IV, p. 556.)

*Graduates in 1900.*—25.*Students enrolled 1899-1900.*—84.

## FACULTY.

*Drop:* J. A. Weitz, A.M., M.D.—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

(None reported.)

## GRAND RAPIDS.

## GRAND RAPIDS MEDICAL COLLEGE.

(SEE VOL. IV, p. 557.)

*Entrance Requirements.*—An examination in *English* (an essay of about 200 words); *Arithmetic*; *Algebra*, through simple quadratic equations; *Elementary Physics*; *History* of the United States; *Latin*, the grammar and simple prose translation. Any

<sup>1</sup> 2d examination.

properly accredited certificate covering these topics is accepted in the place of an examination.

*Length of Course.*—Four years, of six months each.<sup>1</sup>

*Fees.*—

|                                       |   |   |   |   |         |
|---------------------------------------|---|---|---|---|---------|
| Matriculation, paid but once          | - | - | - | - | \$ 5.00 |
| Tuition, each year                    | - | - | - | - | 50.00   |
| For laboratory work, total for course | - | - | - | - | 30.00   |
| Diploma                               | - | - | - | - | 25.00   |

*Graduates in 1900.*—17.

*Students enrolled 1899-1900.*—

|             |   |   |   |   |   |    |
|-------------|---|---|---|---|---|----|
| Third year  | - | - | - | - | - | 17 |
| Second year | - | - | - | - | - | 13 |
| First year  | - | - | - | - | - | 32 |
| Total       | - | - | - | - | - | 62 |

FACULTY.

*Drop:* John L. Burkhart, M.D., Louis A. Chamberlin, M.D., Thomas C. Irwin, M.D., A. Blyth Thompson, M.D., C. B. Herman, M.D.

*Add:* L. H. Chamberlin, M.D., *Materia Medica and Therapeutics*; Frances A. Rutherford, M.D., *Hygiene, Sanitary Science and Preventive Medicine*; H. J. Chadwick, M.D., *Physiology*; J. B. Hillicker, M.D., *Medical Pathology*; A. M. Campbell, M.D., *Bacteriology and Microscopy*; H. A. Catlin, M.D., *Histology*; G. H. Baert, M.D., Ph.C., *Urinalysis and Gastroanalysis*; O. E. Herrick, M.D., *Clinical Gynecology*; M. E. Roberts, M.D., *Orthopedic and Rectal Surgery*.

—Announcement for Session of 1900-1901.

STATE EXAMINATIONS, 1900.

(None reported.)

SAGINAW.

SAGINAW VALLEY MEDICAL COLLEGE.

(SEE VOL. IV, p. 558.)

*Entrance Requirements.*—"A preparatory literary education for every student equivalent to graduation from a high school, whose diploma would be recognized as fitting the student for entrance to the Freshman class, of the literary department of our state university,<sup>2</sup> and including at least one year of Latin."<sup>3</sup>

*Length of Course.*—Four years, of seven and one-half months each.<sup>3</sup>

*Graduates in 1900.*—29.

*Students enrolled 1899-1900.*—83.

<sup>1</sup> Beginning January 1, 1901.

<sup>2</sup> The University of Michigan, at Ann Arbor.

<sup>3</sup> After September, 1901.

## FACULTY.

*Drop* : H. C. Watkins, M.D.

*Add* : W. J. O'Reilly, M.D., *Principles and Practice of Medicine and Clinical Medicine.*

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

(None reported.)

## MINNESOTA.

(SEE VOL. II, p. 740.)

Graduates of medical colleges whose course extends over four years may present themselves for examination before the Minnesota Board.

*Executive Officer of the Board.*—Dr. C. J. Ringnell, Secretary, 807 Andrus Building, Minneapolis.

## EXAMINATIONS, 1900.

| Name of college.                                   | Passed. | Failed.        | Total. |
|----------------------------------------------------|---------|----------------|--------|
| <b>ILLINOIS.</b>                                   |         |                |        |
| College of Physicians and Surgeons.....            | 8       | 2 <sup>1</sup> | 10     |
| Northwestern University Medical School.....        | 4       | 0              | 4      |
| Rush Medical College.....                          | 11      | 1 <sup>2</sup> | 12     |
| Chicago Homeopathic Medical College.....           | 1       | 0              | 1      |
| Hahnemann Medical College and Hospital of Chicago  | 2       | 1 <sup>3</sup> | 3      |
| Hering Medical College.....                        | 0       | 2 <sup>3</sup> | 2      |
| Illinois Medical College.....                      | 1       | 0              | 1      |
| National Medical College and Hospital.....         | 0       | 1 <sup>4</sup> | 1      |
| <b>IOWA.</b>                                       |         |                |        |
| Keokuk Medical College.....                        | 0       | 1 <sup>5</sup> | 1      |
| College of Physicians and Surgeons of Keokuk....   | 0       | 1 <sup>6</sup> | 1      |
| Medical Department of the State University of Iowa | 2       | 0              | 2      |
| <b>KANSAS.</b>                                     |         |                |        |
| College of Physicians and Surgeons.....            | 1       | 0              | 1      |
| <b>KENTUCKY.</b>                                   |         |                |        |
| Hospital College of Medicine.....                  | 1       | 1 <sup>5</sup> | 2      |
| University of Louisville, Medical Department.....  | 1       | 0              | 1      |
| <b>MARYLAND.</b>                                   |         |                |        |
| College of Physicians and Surgeons.....            | 1       | 0              | 1      |

<sup>1</sup> One each, classes 1890, 1899.

<sup>2</sup> Class of 1897.

<sup>3</sup> Class of 1895.

<sup>4</sup> Class of 1896.

<sup>5</sup> Class of 1898.

<sup>6</sup> Class of 1897—2d examination.

| Name of college.                                                          | Passed. | Failed.         | Total. |
|---------------------------------------------------------------------------|---------|-----------------|--------|
| <b>MICHIGAN.</b>                                                          |         |                 |        |
| University of Michigan, Department of Medicine and Surgery.....           | 4       | 1 <sup>1</sup>  | 5      |
| <b>MINNESOTA.</b>                                                         |         |                 |        |
| College of Medicine and Surgery, University of Minnesota.....             | 45      | 1 <sup>2</sup>  | 46     |
| College of Homeopathic Medicine and Surgery, University of Minnesota..... | 5       | 0               | 5      |
| Hamline University, College of Medicine.....                              | 12      | 11 <sup>3</sup> | 23     |
| <b>MISSOURI.</b>                                                          |         |                 |        |
| Marion-Sims College of Medicine .....                                     | 1       | 1 <sup>4</sup>  | 2      |
| St. Louis College of Physicians and Surgeons.....                         | 1       | 0               | 1      |
| <b>NEW YORK.</b>                                                          |         |                 |        |
| Bellevue Hospital Medical College .....                                   | 0       | 2 <sup>5</sup>  | 2      |
| <b>OHIO.</b>                                                              |         |                 |        |
| Woman's Medical College of Cincinnati.....                                | 0       | 1 <sup>6</sup>  | 1      |
| Cleveland Homeopathic Medical College.....                                | 0       | 1 <sup>7</sup>  | 1      |
| <b>PENNSYLVANIA.</b>                                                      |         |                 |        |
| University of Pennsylvania, Medical Department...                         | 1       | 0               | 1      |
| Jefferson Medical College.....                                            | 2       | 0               | 2      |
| Woman's Medical College of Pennsylvania.....                              | 1       | 0               | 1      |
| Medico-Chirurgical College of Philadelphia.....                           | 2       | 0               | 2      |
| Hahnemann Medical College and Hospital.....                               | 2       | 0               | 2      |
| <b>TENNESSEE.</b>                                                         |         |                 |        |
| Medical Department of the University of Nashville.                        | 0       | 1 <sup>8</sup>  | 1      |
| Vanderbilt University, Medical Department.....                            | 1       | 0               | 1      |
| Meharry Medical Department of Central Tennessee College.....              | 1       | 1 <sup>9</sup>  | 2      |
| University of the South, Medical Department.....                          | 0       | 1 <sup>7</sup>  | 1      |
| <b>VERMONT.</b>                                                           |         |                 |        |
| Medical Department, University of Vermont.....                            | 0       | 1 <sup>2</sup>  | 1      |
| <b>VIRGINIA.</b>                                                          |         |                 |        |
| University College of Medicine.....                                       | 1       | 0               | 1      |
| <b>WISCONSIN.</b>                                                         |         |                 |        |
| Wisconsin College of Physicians and Surgeons.....                         | 1       | 1 <sup>10</sup> | 2      |
| Milwaukee Medical College.....                                            | 0       | 1 <sup>6</sup>  | 1      |

<sup>1</sup> Class of 1883.<sup>2</sup> Class of 1899.<sup>3</sup> One each, classes 1889, 1894; four, class of 1897.<sup>4</sup> Class of 1892.<sup>5</sup> One each, classes 1876, 1884.<sup>6</sup> Class of 1895.<sup>7</sup> Class of 1898.<sup>8</sup> Class of 1896.<sup>9</sup> Class of 1894.<sup>10</sup> Class of 1896—2d examination.

| Name of college.                                         | Passed.    | Failed.        | Total      |
|----------------------------------------------------------|------------|----------------|------------|
| <b>CANADA.</b>                                           |            |                |            |
| Laval University, Medical Department.....                | 7          | 1 <sup>1</sup> | 8          |
| McGill University, Medical Department.....               | 6          | 0              | 6          |
| Manitoba Medical College.....                            | 1          | 0              | 1          |
| Trinity Medical College.....                             | 3          | 0              | 3          |
| <b>FOREIGN.</b>                                          |            |                |            |
| Royal College of Physicians and Surgeons, Edinburgh..... | 0          | 1 <sup>1</sup> | 1          |
| Royal University of Norway.....                          | 1          | 0              | 1          |
| Non-graduates.....                                       | 11         | 4              | 15         |
|                                                          | <u>142</u> | <u>40</u>      | <u>182</u> |

### MINNEAPOLIS.

#### THE COLLEGE OF HOMEOPATHIC MEDICINE AND SURGERY, UNIVERSITY OF MINNESOTA.

(SEE VOL. IV, p. 557.)

*Graduates in 1900.*—Not given in the Bulletin.

*Students enrolled 1899-1900.*—

|            |   |   |   |   |   |   |           |
|------------|---|---|---|---|---|---|-----------|
| Seniors    | - | - | - | - | - | - | 7         |
| Juniors    | - | - | - | - | - | - | 5         |
| Sophomores | - | - | - | - | - | - | 5         |
| Freshmen   | - | - | - | - | - | - | 7         |
| Total      | - | - | - | - | - | - | <u>24</u> |

#### FACULTY.

*Drop:* A. F. Goodrich, M.D.

—*University Bulletin, May 15, 1900.*

### STATE EXAMINATIONS, 1900.

|                   | Passed. | Failed. | Total |
|-------------------|---------|---------|-------|
| Minnesota.....    | 5       | 0       | 5     |
| North Dakota..... | 1       | 0       | 1     |

#### COLLEGE OF MEDICINE AND SURGERY, UNIVERSITY OF MINNESOTA.

(SEE VOL. IV, p. 565.)

*Entrance Requirements.*—The regular entrance examination to the College of Science, Literature, and the Arts of the University, or a certificate, from a recognized school, of having completed the work necessary for the examination.

<sup>1</sup> Class of 1898.



*Graduates in 1900.*—Not given in the Bulletin.

*Students enrolled 1899-1900.*—

|                      |   |   |   |   |   |   |     |
|----------------------|---|---|---|---|---|---|-----|
| Fourth year          | - | - | - | - | - | - | 53  |
| Third "              | - | - | - | - | - | - | 73  |
| Second "             | - | - | - | - | - | - | 87  |
| First "              | - | - | - | - | - | - | 128 |
| Special and graduate | - | - | - | - | - | - | 3   |
| Total                | - | - | - | - | - | - | 344 |

**FACULTY.**

*Drop:* G. A. Hendricks, M.S., M.D., A. E. Senkler, M.D.

*Change:* Charles A. Erdmann, M.D., to *Anatomy (Acting)*.

—*University Bulletin, May 1, 1900.*

**STATE EXAMINATIONS, 1900.**

|                   | Passed. | Failed.        | Total. |
|-------------------|---------|----------------|--------|
| Maine.....        | 1       | 0              | 1      |
| Minnesota.....    | 45      | 1 <sup>1</sup> | 46     |
| Montana .....     | 1       | 0              | 1      |
| New York.....     | 2       | 0              | 2      |
| North Dakota..... | 7       | 0              | 7      |

**HAMLIN UNIVERSITY, COLLEGE OF MEDICINE.**

(SEE VOL. IV, p. 568.)

*Entrance Requirements.*—These have been increased and are now the same as those required for admission to the Freshman class of the College of Science, Literature, and the Arts.

*Length of Course.*—Four years, of nine months each.

*Fees.*—The tuition is now \$75.00 each year.

*Graduates in 1900.*—17, of whom one had an academic degree.

*Students enrolled 1900-1901.*—

|             | Number. | Academic degrees. |
|-------------|---------|-------------------|
| Fourth year | - 28    | 3                 |
| Third "     | - 32    | 1                 |
| Second "    | - 43    | 2                 |
| First "     | - 25    | 1                 |
| Total       | - 128   | 7                 |

**FACULTY.**

*Drop:* W. G. W. Tupper, M.D., William Glenn, M.D.

*Add:* C. F. Dight, M.D., *Physiology*; H. B. Sweetser, M.D., *Practice of Surgery and Clinical Surgery*.

—*Catalogue for Session of 1900-1901.*

<sup>1</sup> Class of 1899.

## STATE EXAMINATIONS, 1900.

|                   | Passed. | Failed.         | Total. |
|-------------------|---------|-----------------|--------|
| Minnesota.....    | 12      | 11 <sup>1</sup> | 23     |
| Montana .....     | 0       | 1 <sup>2</sup>  | 1      |
| North Dakota..... | 3       | 0               | 3      |
| Oregon.....       | 1       | 0               | 1      |

## MISSISSIPPI.

(SEE VOL. II, p. 741.)

It is necessary to pass an examination before the state board of health before securing legal right to practise in Mississippi. The law does not prescribe the character of the previous medical education.

*Executive Officer of the Board.*—Dr. John F. Hunter, Secretary, Jackson.

## EXAMINATIONS, 1900.

The board of health has not revoked the rule forbidding the publishing of the results of the examinations in Mississippi. It is to be hoped it will see the advantage to all interested in the furtherance of a sound medical education to unite with the other boards in this report, and permit the publication in another year.

## MISSOURI.

A new medical practice act has been passed by the legislature of Missouri. A copy of the law was promised, that a summary might be published in connection with this report. This has not been received up to the time of going to press.

## COLUMBIA.

DEPARTMENT OF MEDICINE, UNIVERSITY OF THE STATE OF MISSOURI.

(SEE VOL. IV, p. 656.)

*Entrance Requirements.*—12 "units" are now required in place of the eight reported last year.

*Fees.*—The tuition was made *free* on September 1, 1900. The only charges are a library fee of \$5.00, and the cost of material used in the laboratories.

<sup>1</sup> One each, classes 1889, 1894; four, class of 1897.

<sup>2</sup> Class of 1899.

*Graduates in 1899.*—5, of whom 2 had academic degrees.

*Students enrolled 1899-1900.*—

|            |   |   |   |   |   |   |    |
|------------|---|---|---|---|---|---|----|
| Seniors    | - | - | - | - | - | - | 4  |
| Juniors    | - | - | - | - | - | - | 8  |
| Sophomores | - | - | - | - | - | - | 6  |
| Freshmen   | - | - | - | - | - | - | 43 |
| Total      | - | - | - | - | - | - | 61 |

FACULTY.

*Drop:* Howard Ayers, B.S., Ph.D.

*Add:* George Lefevre, A.B., Ph.D., *Zoology*; Charles Wilson Greene, Ph.D., *Physiology and Pharmacology*.

—*Catalogue, 1899-1900.*

STATE EXAMINATIONS, 1900.

(None reported.)

KANSAS CITY.

HAHNEMANN MEDICAL COLLEGE.<sup>1</sup>

(SEE VOL. IV, p. 575.)

*Graduates.*—Not given in the announcement.

*Students enrolled.*—Not given in the announcement.

FACULTY.

*Drop:* O. L. Garlinghouse, M.D., E. S. Northrup, M.D., C. H. St. John, M.D., H. C. Oatman, M.D., J. F. Northrup, M.D., E. B. Notrebe, M.D., W. A. Bonnawell, D.D.S., M. R. King, A.M.

*Add:* L. G. Van Scoyoe, M.D., *Principles and Practice of Medicine, and Orificial Philosophy*; A. P. Metzner, M.D., *Physiology*; D. L. Wallick, D.D.S., *Dentistry*; J. S. Watt, M.D., *Hygiene and Sanitary Science*.

—*Announcement for Session of 1900-1901.*

STATE EXAMINATION, 1900.

|                | Passed. | Failed. | Total. |
|----------------|---------|---------|--------|
| Illinois ..... | I       | O       | I      |

KANSAS CITY HOMOEOPATHIC MEDICAL COLLEGE.

(SEE VOL. IV, p. 574.)

*Graduates in 1900.*—9.

*Students enrolled 1900-1901.*—59.

FACULTY.

*Drop:* H. A. Barber, M.D., G. A. Dean, M.D., J. K. Radley, M.D., E. L. Norris, M.D.

*Add:* A. H. Baldwin, M.D., *Practice of Medicine*.

—*Announcement for Session of 1900-1901.*

<sup>1</sup> Last year College of Homeopathic Medicine and Surgery.

## STATE EXAMINATION, 1900.

|             | Passed. | Failed.        | Total |
|-------------|---------|----------------|-------|
| Idaho ..... | 0       | 1 <sup>1</sup> | 1     |

## KANSAS CITY MEDICAL COLLEGE.

(SEE VOL. IV, p. 569.)

*Graduates in 1900.*—49.*Students enrolled 1899-1900.*—

|            |   |   |   |   |   |   |   |     |
|------------|---|---|---|---|---|---|---|-----|
| Seniors    | - | - | - | - | - | - | - | 51  |
| Juniors    | - | - | - | - | - | - | - | 45  |
| Sophomores | - | - | - | - | - | - | - | 18  |
| Freshmen   | - | - | - | - | - | - | - | 32  |
| Total      | - | - | - | - | - | - | - | 146 |

## FACULTY.

*Drop*: J. H. Thompson, M.D., and Joseph Sharp, M.D.—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                   | Passed. | Failed.        | Total |
|-------------------|---------|----------------|-------|
| Arizona .....     | 2       | 0              | 2     |
| Illinois.....     | 1       | 0              | 1     |
| Iowa.....         | 1       | 0              | 1     |
| North Dakota..... | 1       | 1 <sup>2</sup> | 2     |

## MEDICO-CHIRURGICAL COLLEGE.

(SEE VOL. IV, p. 573.)

*Graduates in 1900.*—20.*Students enrolled 1899-1900.*—62.

## FACULTY.

*Drop*: P. L. McDonald, M.D., T. B. Thrush, M.D., J. S. Lurie, Ph.D.*Add*: N. P. Wood, M.D., *Principles and Practice of Medicine*; W. S. Wheeler, A.M., M.D., *Therapeutics*; E. G. Blair, A.B., M.D., *Surgical Pathology and Clinical Surgery*; Samuel Ayers, M.D., *Surgical Anatomy*; R. B. Tate, M.D., *Histology*.—*Annual Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

(None reported.)

## UNIVERSITY MEDICAL COLLEGE.

(SEE VOL. IV, p. 570.)

*Entrance Requirements.*—Those of the Association of American Medical Colleges.<sup>3</sup><sup>1</sup> Class of 1894.<sup>2</sup> Class of 1898.<sup>3</sup> See Vol. IV, p. 455.

*Fees.—*

|                           |   |   |   |   |   |         |
|---------------------------|---|---|---|---|---|---------|
| Matriculation, first year | - | - | - | - | - | \$ 5.00 |
| Tuition, each year        | - | - | - | - | - | 60.00   |
| Laboratory, each course   | - | - | - | - | - | 5.00    |
| Final examination         | - | - | - | - | - | 25.00   |

*Graduates in 1900.*—117, of whom 3 had academic degrees.

*Students enrolled 1900-1901.*—

|                 | Number. | Academic degrees. |
|-----------------|---------|-------------------|
| Senior class    | 120     | 3                 |
| Junior class    | 81      | 1                 |
| Sophomore class | 45      | 4                 |
| Freshman class  | 77      | 0                 |
| Total           | 323     | 8                 |

## FACULTY.

*Drop:* C. W. Adams, A.M., M.D., B. E. Fryer, M.D., A. M. Wilson, A.M., M.D., T. W. Schaefer, M.D., A. L. Berger, A.M., LL.B., F. T. Reyling, M.D.

*Add:* J. W. Perkins, A.B., M.D., *Principles and Practice of Surgery and Clinical Surgery*; Charles E. Wilson, M.D., *Anatomy*; C. W. Dulin, M.D., *Pathology*; A. H. Cordier, M.D., *Abdominal Surgery*; J. P. Knoche, M.D., *Dermatology*; B. L. Sulzbacher, M.D., *Histology*; W. M. Cross, A.B., *Chemistry*; O. G. Young, A.M., LL.B., *Medical Jurisprudence*; S. G. Burnett, M.D., *Physiology of the Nervous System and Clinical Neurology*; S. P. Child, A.B., M.D., *Physiology*.

Dr. C. F. Wainright is now the Dean.

—*Annual Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                | Passed. | Failed.        | Total. |
|----------------|---------|----------------|--------|
| Idaho          | 3       | 0              | 3      |
| Iowa           | 1       | 0              | 1      |
| Oregon         | 0       | 1 <sup>1</sup> | 1      |
| South Carolina | 1       | 0              | 1      |

## THE WOMAN'S MEDICAL COLLEGE.

(SEE VOL. IV, p. 572.)

*Graduates in 1900.*—2.

*Students enrolled 1899-1900.*—19.

## FACULTY.

*Drop:* J. F. Gaines, M.D., A. H. Rogers, A.M., M.D.

*Add:* J. D. Griffith, M.D., *Principles and Practice of Surgery and Clinical Surgery*; C. A. Dannaker, M.D., *Obstetrics*; S. P. Child, M.D., *Physiology*; L. B. Sawyer, M.D., *Medical Jurisprudence*; Maggie L. McRea, M.D., *Electrotherapeutics*; Charles E. Clarke, M.D., *Rhinology and Laryngology*.

—*Announcement for Session of 1900-1901.*

<sup>1</sup> Class of 1892.

## STATE EXAMINATIONS, 1900.

(None reported.)

## ST. JOSEPH.

CENTRAL MEDICAL COLLEGE.

(SEE VOL. IV, p. 376.)

## STATE EXAMINATION, 1900.

|            | Passed. | Failed. | Total. |
|------------|---------|---------|--------|
| Iowa ..... | 1       | 0       | 1      |

THE ENSWORTH MEDICAL COLLEGE AND HOSPITAL.

(SEE VOL. IV, p. 577.)

*Graduates in 1900.—20.**Students enrolled 1899-1900.—50.*

## FACULTY.

Hiram Christopher, A.M., M.D., is now Emeritus, and Jacob Geiger, M.D., LL.D. has become *Dean*. *Drop*: W. F. Schmid, A.B., M.D., Daniel Morton, M.D.

*Add*: G. L. Sherman, M.D., *Materia Medica, Therapeutics, and Diseases of Children*; W. B. Deffenbaugh, M.D., *Anatomy*.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

(None reported.)

## ST. LOUIS.

AMERICAN MEDICAL COLLEGE.

(SEE VOL. IV, p. 585.)

*Graduates in 1900.—2.**Students enrolled 1899-1900.—56.*

## FACULTY.

*Drop*: C. W. Conley, M.D., J. R. Barry, M.D., J. M. Blackmore, M.D., F. A. Kraft, M.D., J. T. Sibley, M.D.

*Add*: P. C. Clayberg, M.D., *Principles and Practice of Medicine*; W. W. Cherry, M.D., *Normal Histology, Osteology and Syndesmology*; J. A. Miller, B.S.D., *Microscopy, Bacteriology, and Hygiene*.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                | Passed. | Failed. | Total. |
|----------------|---------|---------|--------|
| New York ..... | 1       | 0       | 1      |
| Oregon .....   | 2       | 0       | 2      |

## BARNES MEDICAL COLLEGE.

(SEE VOL. IV, p. 578.)

*Graduates in 1900.*—107, of whom 15 had academic degrees.*Students enrolled 1899-1900.*—

|                 | Number. | Academic degrees. |
|-----------------|---------|-------------------|
| Senior class    | - 177   | 22                |
| Junior "        | - 94    | 19                |
| Sophomore class | - 94    | 13                |
| Freshman "      | - 141   | ..                |
| Total           | - 506   | 54                |

## FACULTY.

W. C. Day, M.D., is now Emeritus, and *Obstetrics* has been added to the chair of R. C. Blackmer, C.M., M.D.

*Drop*: T. E. Murrell, M.D., G. M. Phillips, M.D.

*Add*: J. A. Close, M.B., L.R.C.S. (Eng.), *General Pathology and Clinical Microscopy.*  
—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                 | Passed. | Failed.        | Total. |
|-----------------|---------|----------------|--------|
| Alabama .....   | 2       | 0              | 2      |
| Arizona .....   | 1       | 0              | 1      |
| Illinois .....  | 9       | 2              | 11     |
| Iowa .....      | 3       | 2 <sup>1</sup> | 5      |
| Louisiana ..... | 0       | 1              | 1      |

## BEAUMONT HOSPITAL MEDICAL COLLEGE.

(SEE VOL. IV, p. 584.)

*Graduates in 1900.*—54.*Students enrolled 1899-1900.*—108.

## FACULTY.

*Drop*: J. C. Mulhall, A.M., M.D., J. B. Keber, A.M., M.D., C. W. Schleifarth, M.D., Le Grand Atwood, M.D.

*Add*: J. P. Hennerich, M.D., *Clinical Surgery*; E. F. Tiedemann, M.D., *Pathology and Bacteriology*; W. P. Loth, M.D., *Diseases of the Skin and Syphilis.*

—*15th Annual Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

(None reported.)

## THE HOMOEOPATHIC MEDICAL COLLEGE OF MISSOURI.

(SEE VOL. IV, p. 586.)

*Fees.*—

|                                                        |       |          |
|--------------------------------------------------------|-------|----------|
| General tuition for single course                      | - - - | \$ 60.00 |
| Scholarship tickets for general tuition for four years | - - - | 200.00   |

<sup>1</sup> Same person failed twice.

*Graduates in 1900.*—28.

*Students enrolled 1899-1900.*—65.

**FACULTY.**

*Drop* : S. B. Parsons, M.D., W. J. Harris, M.D., W. J. Gundelach, M.D.,  
W. L. Reed, M.D.

—43d Annual Announcement for Session of 1900-1901.

**STATE EXAMINATION, 1900.**

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Illinois..... | 1       | 0       | 1      |

**MARION-SIMS COLLEGE OF MEDICINE.**

(SEE VOL. IV, p. 579.)

*Graduates in 1900.*—16, of whom 9 had academic degrees.

*Students enrolled 1899-1900.*—

|                          | Number. | Academic<br>degrees. |
|--------------------------|---------|----------------------|
| Freshmen - - - - -       | 79      | 2                    |
| Sophomores - - - - -     | 74      | 7                    |
| Juniors - - - - -        | 55      | 2                    |
| Seniors - - - - -        | 20      | 9                    |
| Specials - - - - -       | 8       | .                    |
| Post-graduates - - - - - | 6       | .                    |
| Total - - - - -          | 242     | 20                   |

**FACULTY.**

*Drop* : W. C. Ussery, M.D., M. F. Engman, M.D.

—Announcement for Session of 1900-1901.

**STATE EXAMINATIONS, 1900.**

|                   | Passed. | Failed.        | Total. |
|-------------------|---------|----------------|--------|
| Illinois.....     | 5       | 0              | 5      |
| Iowa.....         | 2       | 0              | 2      |
| Minnesota.....    | 1       | 1 <sup>1</sup> | 2      |
| Oregon.....       | 1       | 0              | 1      |
| Pennsylvania..... | 0       | 1 <sup>1</sup> | 1      |

**ST. LOUIS COLLEGE OF PHYSICIANS AND SURGEONS.**

(SEE VOL. IV, p. 581.)

*Graduates in 1900.*—37.

*Students enrolled 1899-1900.*—228.

**FACULTY.**

*Drop* : William Porter, M.D., Heinrich Stern, Ph.D., M.D.

*Add* : J. W. Miller, M.D., *Surgical Anatomy*; Rudolph Buhman, M.D.,  
*Chemistry, Toxicology and Urinalysis.*

—22d Annual Announcement for Session of 1900-1901.

<sup>1</sup> Class of 1892.

<sup>2</sup> 2d examination.



## STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed.        | Total. |
|--------------------|---------|----------------|--------|
| Arizona .....      | 2       | 0              | 2      |
| Illinois.....      | 3       | 0              | 3      |
| Iowa .....         | 1       | 0              | 1      |
| Minnesota.....     | 1       | 0              | 1      |
| New York .....     | 0       | 1 <sup>1</sup> | 1      |
| Pennsylvania ..... | 1       | 0              | 1      |

## WASHINGTON UNIVERSITY, MEDICAL DEPARTMENT.

(SEE VOL. IV, p. 582.)

*Graduates in 1900.*—Not given in the catalogue.*Students enrolled 1899-1900.*—248, of whom 28 had academic degrees.

## FACULTY.

*Drop* : J. M. Scott, M.D., H. H. Mudd, M.D.W. S. Chaplin, LL.D., is now *Acting Dean*.—*Catalogue, 1900-1901.*

## STATE EXAMINATIONS, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Illinois..... | 3       | 0       | 3      |
| Oregon.....   | 1       | 0       | 1      |
| Virginia..... | 1       | 0       | 1      |

## MONTANA.

(SEE VOL. II, p. 745.)

Graduates in medicine from colleges whose course complies with the requirements of the board of medical examiners, may apply for an examination. It is necessary to pass their examination to secure a license to practise.

*Executive Officer of the Board.*—Dr. William C. Riddell, Secretary, Helena.

## EXAMINATIONS, 1900.

| Name of college.                                             | Passed. | Failed.        | Total. |
|--------------------------------------------------------------|---------|----------------|--------|
| <b>CALIFORNIA.</b>                                           |         |                |        |
| College of Medicine, University of Southern California ..... | 2       | 0              | 2      |
| <b>COLORADO.</b>                                             |         |                |        |
| Gross Medical College.....                                   | 1       | 1 <sup>2</sup> | 2      |

<sup>1</sup> Class of 1899.<sup>2</sup> Class of 1896.

| Name of college.                                                   | Passed. | Failed.         | Total. |
|--------------------------------------------------------------------|---------|-----------------|--------|
| <b>ILLINOIS.</b>                                                   |         |                 |        |
| Northwestern University Medical College.....                       | 1       | 0               | 1      |
| Rush Medical College.....                                          | 3       | 2 <sup>1</sup>  | 5      |
| National Medical College and Hospital.....                         | 1       | 0               | 1      |
| <b>KENTUCKY.</b>                                                   |         |                 |        |
| Kentucky School of Medicine .....                                  | 0       | 1 <sup>2</sup>  | 1      |
| <b>MARYLAND.</b>                                                   |         |                 |        |
| Baltimore Medical College.....                                     | 0       | 1 <sup>3</sup>  | 1      |
| College of Physicians and Surgeons.....                            | 0       | 1 <sup>4</sup>  | 1      |
| <b>MICHIGAN.</b>                                                   |         |                 |        |
| University of Michigan, Department of Medicine<br>and Surgery..... | 3       | 0               | 3      |
| Detroit College of Medicine.....                                   | 0       | 1 <sup>5</sup>  | 1      |
| <b>MINNESOTA.</b>                                                  |         |                 |        |
| College of Medicine and Surgery, University of Min-<br>nesota..... | 1       | 0               | 1      |
| Hamline University, College of Medicine.....                       | 0       | 1 <sup>6</sup>  | 1      |
| <b>NEW YORK.</b>                                                   |         |                 |        |
| College of Physicians and Surgeons (Columbia)....                  | 0       | 1 <sup>7</sup>  | 1      |
| University and Bellevue Hospital Medical College.                  | 2       | 0               | 2      |
| <b>OHIO.</b>                                                       |         |                 |        |
| Cincinnati College of Medicine and Surgery .....                   | 1       | 0               | 1      |
| <b>OREGON.</b>                                                     |         |                 |        |
| Medical Department, University of Oregon.....                      | 0       | 1 <sup>8</sup>  | 1      |
| <b>PENNSYLVANIA.</b>                                               |         |                 |        |
| University of Pennsylvania, Medical Department ..                  | 1       | 1 <sup>9</sup>  | 2      |
| Jefferson Medical College.....                                     | 1       | 0               | 1      |
| Medico-Chirurgical College of Philadelphia.....                    | 0       | 1               | 1      |
| <b>VERMONT.</b>                                                    |         |                 |        |
| Medical Department, University of Vermont .....                    | 0       | 1 <sup>10</sup> | 1      |
| <b>CANADA.</b>                                                     |         |                 |        |
| Bishop's College, Medical Department .....                         | 1       | 0               | 1      |
| McGill University, Medical Department.....                         | 3       | 0               | 3      |
| Queen's College, Faculty of Medicine.....                          | 1       | 0               | 1      |
| Trinity Medical College .....                                      | 2       | 0               | 2      |
|                                                                    | 24      | 13              | 37     |

<sup>1</sup> One each, classes 1883 (3d examination), 1888.<sup>2</sup> Class not given.<sup>3</sup> Class of 1898.<sup>4</sup> Class of 1896.<sup>5</sup> 2d examination, class not given.<sup>6</sup> Class of 1899.<sup>7</sup> Class of 1888—2d examination.<sup>8</sup> Class of 1897.<sup>9</sup> Class of 1878—2d examination.<sup>10</sup> Class of 1882.

## NEBRASKA.

(SEE VOLS. II, p. 746; III, p. 284.)

To practise medicine in Nebraska, one must be a graduate of a medical school complying with the standards enacted by the state board of health. To such, a license is issued which must be recorded in the proper office of the county court.

*Executive Officer of the Board.*—Dr. B. F. Crummer, Secretary, Omaha.

## LINCOLN.

LINCOLN MEDICAL COLLEGE OF COTNER UNIVERSITY.

(SEE VOL. IV, p. 587.)

*Graduates in 1900.*—4.

*Students enrolled 1899-1900.*—56.

## FACULTY.

*Drop:* W. S. Yager, M.D., F.W. Hill, M.D., D.D.S.

*Add:* S. J. Smith, M.D., *Diseases of Children*; M. A. Carriker, M.D., *Specific Medication, Hydro- and Electrotherapeutics.*

—11th Annual Announcement for Session of 1900-1901.

## STATE EXAMINATIONS, 1900.

(None reported.)

## OMAHA.

JOHN A. CREIGHTON MEDICAL COLLEGE.

(SEE VOL. IV, p. 589.)

*Graduates in 1900.*—20.

*Students enrolled 1899-1900.*—

|            |   |   |   |   |   |   |   |     |
|------------|---|---|---|---|---|---|---|-----|
| Freshmen   | - | - | - | - | - | - | - | 40  |
| Sophomores | - | - | - | - | - | - | - | 49  |
| Juniors    | - | - | - | - | - | - | - | 26  |
| Seniors    | - | - | - | - | - | - | - | 21  |
| Total      | - | - | - | - | - | - | - | 136 |

## FACULTY.

*Drop:* W. J. Galbraith, A.M., M.D., A.B. Somers, M.D., F. S. Thomas, M.D., S. R. Towne, A.M., M.D., A. R. Mitchell, M.D.

—Announcement for Session of 1900-1901.

## STATE EXAMINATIONS, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Illinois..... | 1       | 0       | 1      |
| Iowa.....     | 4       | 0       |        |

**OMAHA MEDICAL COLLEGE, MEDICAL DEPARTMENT, UNIVERSITY  
OF OMAHA.**

(SEE VOL. IV, p. 588.)

*Fees.*—The tuition is now \$75.00 each year.

*Graduates in 1900.*—14.

*Students enrolled 1899-1900.*—118.

**FACULTY.**

*Drop:* E. W. Chase, M.D., C. C. Allison, M.D., H. B. Wilson, M.D.

*Add:* J. C. Anderson, M.D., *Genito-urinary and Rectal Surgery*; A. B. Somers, M.D., *Obstetrics*; S. R. Towne, M.D., *Hygiene and State Medicine*; H. P. Jensen, M.D., *Electrotherapeutics*.

—20th Annual Circular of Information for Session of 1900-1901.

**STATE EXAMINATION, 1900.**

|               | Passed. | Failed. | Total |
|---------------|---------|---------|-------|
| New York..... | 1       | 0       | 1     |

**NEVADA.**

(SEE VOL. IV, p. 737.)

Graduates from medical colleges in the United States recognized by the board of medical examiners may obtain a license upon verification of their diplomas. If the college of which the applicant is a graduate does not come up to the standard of the board, or is a foreign institution, the applicant must, in addition, submit to an examination.

*Executive Officer of the Board.*—Dr. S. L. Lee, Secretary, Carson City.

**NEW HAMPSHIRE.**

(SEE VOL. III, p. 285.)

Graduates in medicine whose preliminary education is equivalent to a full course in a registered academy or high school, and whose medical course covered a period of four years may apply for an examination for a license to practise.

*Executive Officer of the Board.*—Channing Folsom, Superintendent of Public Instruction, is the regent, State House, Concord.

**EXAMINATIONS, 1900.**

| Name of college.                              | Passed. | Failed. | Total |
|-----------------------------------------------|---------|---------|-------|
| DISTRICT OF COLUMBIA.                         |         |         |       |
| National University, Medical Department ..... | 1       | 0       | 1     |

| Name of college.                                                    | Passed. | Failed.        | Total. |
|---------------------------------------------------------------------|---------|----------------|--------|
| <b>MAINE.</b>                                                       |         |                |        |
| Medical Department of Bowdoin College .....                         | 6       | 0              | 6      |
| <b>MARYLAND.</b>                                                    |         |                |        |
| Baltimore Medical College .....                                     | 5       | 0              | 5      |
| <b>MASSACHUSETTS.</b>                                               |         |                |        |
| Medical School of Harvard University .....                          | 4       | 0              | 4      |
| Boston University School of Medicine .....                          | 6       | 0              | 6      |
| Tufts College Medical School .....                                  | 1       | 0              | 1      |
| <b>MICHIGAN.</b>                                                    |         |                |        |
| University of Michigan, Department of Medicine<br>and Surgery ..... | 1       | 0              | 1      |
| <b>NEW HAMPSHIRE.</b>                                               |         |                |        |
| Dartmouth College, Medical School .....                             | 2       | 0              | 2      |
| <b>NEW YORK.</b>                                                    |         |                |        |
| Long Island College Hospital .....                                  | 2       | 0              | 2      |
| College of Physicians and Surgeons (Columbia) ...                   | 1       | 0              | 1      |
| University of the City of New York, Medical Depart-<br>ment .....   | 1       | 0              | 1      |
| <b>VERMONT.</b>                                                     |         |                |        |
| Medical Department, University of Vermont .....                     | 3       | 1              | 4      |
| <b>CANADA.</b>                                                      |         |                |        |
| Laval University, Medical Department .....                          | 3       | 1 <sup>1</sup> | 4      |
|                                                                     | 36      | 2              | 38     |

## HANOVER.

### DARTMOUTH COLLEGE, MEDICAL SCHOOL.

(SEE VOL. IV, p. 590.)

*Fees.*—Tuition, each year, \$110.00.

*Graduates in 1900.*—30, of whom 10 had academic degrees.

*Students enrolled 1900-1901.*—

|                       | Number. | Academic<br>degrees. |
|-----------------------|---------|----------------------|
| Fourth year - - - - - | 30      | 4                    |
| Third " - - - - -     | 13      | 5                    |
| Second " - - - - -    | 21      | 13                   |
| First " - - - - -     | 26      | 0                    |
| Total - - - - -       | 90      | 22                   |

### FACULTY.

*Drop:* O. P. Hubbard, M.D., LL.D.

—Catalogue, 1900-1901.

<sup>1</sup> Class of 1883, 2d examination. Passed 3d examination.

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Connecticut .....   | 2       | 0              | 2      |
| Delaware .....      | 1       | 0              | 1      |
| Maine .....         | 4       | 1 <sup>1</sup> | 5      |
| Massachusetts ..... | 9       | 4 <sup>2</sup> | 13     |
| New Hampshire ..... | 2       | 0              | 2      |
| New York .....      | 1       | 0              | 1      |
| Pennsylvania .....  | 1       | 0              | 1      |
| Vermont .....       | 1       | 1              | 2      |

## NEW JERSEY.

(SEE VOL. II, p. 748.)

Candidates for an examination for licensure in New Jersey must have a preliminary education equivalent to a high-school course, and four years in the medical course.

*Executive Officer of the Board.*—Dr. E. L. B. Godfrey, Secretary, Camden.

## EXAMINATIONS, 1900.

| Name of college.                                        | Passed. | Failed.        | Total. |
|---------------------------------------------------------|---------|----------------|--------|
| <b>DISTRICT OF COLUMBIA.</b>                            |         |                |        |
| Georgetown University, School of Medicine .....         | 1       | 0              | 1      |
| National University, Medical Department .....           | 1       | 0              | 1      |
| Howard University, Medical Department .....             | 2       | 1 <sup>3</sup> | 3      |
| <b>ILLINOIS.</b>                                        |         |                |        |
| Rush Medical College .....                              | 1       | 0              | 1      |
| Hahnemann Medical College and Hospital of Chicago ..... | 1       | 0              | 1      |
| <b>INDIANA.</b>                                         |         |                |        |
| Medical College of Indiana .....                        | 1       | 0              | 1      |
| <b>MAINE.</b>                                           |         |                |        |
| Medical Department of Bowdoin College .....             | 1       | 0              | 1      |
| <b>MARYLAND.</b>                                        |         |                |        |
| Baltimore Medical College .....                         | 2       | 1              | 3      |
| Baltimore University School of Medicine .....           | 4       | 6 <sup>4</sup> | 10     |
| College of Physicians and Surgeons .....                | 2       | 0              | 2      |
| University of Maryland, School of Medicine .....        | 1       | 0              | 1      |
| Maryland Medical College .....                          | 0       | 1              | 1      |
| <b>MASSACHUSETTS.</b>                                   |         |                |        |
| Medical School of Harvard University .....              | 2       | 0              | 2      |

<sup>1</sup> Class of 1897.<sup>2</sup> One, class of 1897.<sup>3</sup> 4th examination.<sup>4</sup> Two, 2d, one, 3d, and one, 4th examinations.

| Name of college.                                                 | Passed.  | Failed.        | Total.    |
|------------------------------------------------------------------|----------|----------------|-----------|
| <b>MICHIGAN.</b>                                                 |          |                |           |
| University of Michigan, Department of Medicine and Surgery ..... | 1        | 0              | 1         |
| <b>NEW YORK.</b>                                                 |          |                |           |
| Long Island College Hospital.....                                | 1        | 1              | 2         |
| Bellevue Hospital Medical College .....                          | 0        | 2 <sup>1</sup> | 2         |
| College of Physicians and Surgeons (Columbia) ...                | 5        | 0              | 5         |
| Cornell University Medical College .....                         | 2        | 0              | 2         |
| New York Homeopathic Medical College and Hospital .....          | 1        | 0              | 1         |
| University of the City of New York, Medical Department .....     | 1        | 0              | 1         |
| Woman's Medical College of the New York Infirmary .....          | 1        | 0              | 1         |
| <b>PENNSYLVANIA.</b>                                             |          |                |           |
| University of Pennsylvania, Medical Department..                 | 19       | 0              | 19        |
| Jefferson Medical College.....                                   | 10       | 0              | 10        |
| Woman's Medical College of Pennsylvania .....                    | 3        | 0              | 3         |
| Medico-Chirurgical College of Philadelphia.....                  | 11       | 3 <sup>2</sup> | 14        |
| Hahnemann Medical College and Hospital.....                      | 12       | 3 <sup>1</sup> | 15        |
| <b>TENNESSEE.</b>                                                |          |                |           |
| Vanderbilt University, Medical Department.....                   | 0        | 2 <sup>3</sup> | 2         |
| University of the South, Medical Department.....                 | 1        | 0              | 1         |
| <b>VIRGINIA.</b>                                                 |          |                |           |
| University College of Medicine.....                              | 1        | 0              | 1         |
| <b>FOREIGN.</b>                                                  |          |                |           |
| University of Naples, Italy.....                                 | 2        | 1              | 3         |
| University of Padua, Italy.....                                  | 1        | 0              | 1         |
|                                                                  | <hr/> 91 | <hr/> 21       | <hr/> 112 |

## NEW MEXICO.

(SEE VOL. II, p. 750.)

Physicians intending to practise in New Mexico must possess a high-school education. If the diploma in medicine is from a college recognized by the board, a license will be at once issued; otherwise he must pass an examination.

*Executive Officer of the Board.*—Dr. T. P. Martin, Secretary, Taos.

<sup>1</sup> One, 2d examination.

<sup>2</sup> One, 2d and one, 3d examination.

<sup>3</sup> One, 3d and one, 4th examination.

## NEW YORK.

(SEE VOL. II, p. 751.)

Unless the legislature passes a special Act granting the right to practise to certain named individuals, all persons proposing to enter upon the practice of medicine in New York, must have a preliminary education rated at "48 academic counts" (a first-class high-school course) and have pursued medical studies for four years in some medical college, graduating therefrom. All such are eligible for the examination before one of three boards.

*Executive Officer of the Board.*—James Russell Parsons, Jr., Secretary of the regents of the State University, State House, Albany.

EXAMINATIONS, 1900.<sup>1</sup>

| Name of college.                                  | Passed. | Failed.        | Total. |
|---------------------------------------------------|---------|----------------|--------|
| <b>CALIFORNIA.</b>                                |         |                |        |
| Cooper Medical College .....                      | 1       | 0              | 1      |
| Medical Department, University of California..... | 1       | 0              | 1      |
| <b>COLORADO.</b>                                  |         |                |        |
| Gross Medical College .....                       | 0       | 1 <sup>2</sup> | 1      |
| University of Denver, School of Medicine.....     | 1       | 0              | 1      |
| <b>CONNECTICUT.</b>                               |         |                |        |
| Yale University, Medical Department .....         | 6       | 0              | 6      |
| <b>DISTRICT OF COLUMBIA.</b>                      |         |                |        |
| Columbian University, Medical School .....        | 1       | 0              | 1      |
| Georgetown University, School of Medicine.....    | 1       | 0              | 1      |
| <b>GEORGIA.</b>                                   |         |                |        |
| Atlanta Medical College.....                      | 0       | 1 <sup>3</sup> | 1      |
| <b>ILLINOIS.</b>                                  |         |                |        |
| College of Physicians and Surgeons .....          | 1       | 0              | 1      |
| Rush Medical College.....                         | 2       | 0              | 2      |
| Chicago Homeopathic Medical College .....         | 3       | 0              | 3      |
| Hahnemann Medical College and Hospital of Chicago | 2       | 0              | 2      |
| Hering Medical College .....                      | 1       | 1 <sup>4</sup> | 2      |
| Illinois Medical College .....                    | 2       | 4 <sup>5</sup> | 6      |
| <b>INDIANA.</b>                                   |         |                |        |
| Medical College of Indiana .....                  | 1       | 0              | 1      |
| <b>IOWA.</b>                                      |         |                |        |
| College of Physicians and Surgeons of Keokuk .... | 1       | 0              | 1      |

<sup>1</sup> These examinations are tabulated for the year ending July 31, 1900.

<sup>2</sup> Class of 1895.

<sup>3</sup> Class of 1896.

<sup>4</sup> Class of 1898.

<sup>5</sup> One, class of 1898; three, class of 1899 (two, 3d, and one, 4th examinations).



| Name of college.                                                    | Passed. | Failed.        | Total. |
|---------------------------------------------------------------------|---------|----------------|--------|
| <b>KENTUCKY.</b>                                                    |         |                |        |
| University of Louisville, Medical Department.....                   | 1       | 0              | 1      |
| <b>LOUISIANA.</b>                                                   |         |                |        |
| Tulane University of Louisiana, Medical Department                  | 1       | 0              | 1      |
| <b>MAINE.</b>                                                       |         |                |        |
| Medical Department of Bowdoin College.....                          | 1       | 0              | 1      |
| <b>MARYLAND.</b>                                                    |         |                |        |
| Baltimore Medical College.....                                      | 5       | 1 <sup>1</sup> | 6      |
| Baltimore University School of Medicine .....                       | 17      | 8 <sup>2</sup> | 25     |
| College of Physicians and Surgeons.....                             | 3       | 0              | 3      |
| Johns Hopkins University, Medical Department....                    | 6       | 0              | 6      |
| Maryland Medical College.....                                       | 1       | 1 <sup>3</sup> | 2      |
| <b>MASSACHUSETTS.</b>                                               |         |                |        |
| Medical School of Harvard University.....                           | 2       | 1 <sup>4</sup> | 3      |
| College of Physicians and Surgeons .....                            | 1       | 0              | 1      |
| Boston University School of Medicine .....                          | 2       | 0              | 2      |
| Tufts College Medical School.....                                   | 1       | 0              | 1      |
| <b>MICHIGAN.</b>                                                    |         |                |        |
| University of Michigan, Department of Medicine and<br>Surgery ..... | 6       | 0              | 6      |
| Detroit College of Medicine.....                                    | 0       | 1              | 1      |
| <b>MINNESOTA.</b>                                                   |         |                |        |
| College of Medicine and Surgery, University of Min-<br>nesota.....  | 2       | 0              | 2      |
| <b>MISSOURI.</b>                                                    |         |                |        |
| St. Louis College of Physicians and Surgeons.....                   | 0       | 1 <sup>5</sup> | 1      |
| American Medical College.....                                       | 1       | 0              | 1      |
| <b>NEBRASKA.</b>                                                    |         |                |        |
| Omaha Medical College .....                                         | 1       | 0              | 1      |
| <b>NEW HAMPSHIRE.</b>                                               |         |                |        |
| Dartmouth College, Medical School.....                              | 1       | 0              | 1      |
| <b>NEW YORK.</b>                                                    |         |                |        |
| Albany Medical College .....                                        | 30      | 3 <sup>6</sup> | 33     |
| Long Island College Hospital.....                                   | 38      | 8 <sup>7</sup> | 46     |
| University of Buffalo, Medical Department.....                      | 48      | 2 <sup>8</sup> | 50     |
| Niagara University, Medical Department.....                         | 2       | 0              | 2      |

<sup>1</sup> Class of 1897 (3d examination).<sup>2</sup> One, class of 1898 (3d examination); four, class of 1899 (three, 2d examinations).<sup>3</sup> Class of 1899.<sup>4</sup> Class of 1897.<sup>5</sup> Class of 1899.<sup>6</sup> One, class of 1895 (8th examination); one, class of 1897 (3d examination); one, class of 1898 (6th examination).<sup>7</sup> One each, classes 1893, 1896 (8th examination), 1897 (8th examination), 1898 (5th examination); two, class of 1899 (one, 2d examination).<sup>8</sup> One each, classes 1895 (7th examination), 1899 (2d examination).

| Name of college.                                             | Passed. | Failed.        | Total. |
|--------------------------------------------------------------|---------|----------------|--------|
| Bellevue Hospital Medical College.....                       | 15      | 1 <sup>1</sup> | 16     |
| College of Physicians and Surgeons (Columbia)...             | 159     | 4 <sup>2</sup> | 163    |
| Cornell University Medical College .....                     | 49      | 2 <sup>3</sup> | 51     |
| University of the City of New York, Medical Department ..... | 9       | 2 <sup>4</sup> | 11     |
| University and Bellevue Hospital Medical College..           | 48      | 4 <sup>5</sup> | 52     |
| New York Homeopathic Medical College and Hospital .....      | 31      | 0              | 31     |
| Eclectic Medical College of the City of New York..           | 15      | 2              | 17     |
| New York Medical College and Hospital for Women              | 5       | 0              | 5      |
| Woman's Medical College of the New York Infirmary.....       | 7       | 0              | 7      |
| College of Medicine, Syracuse University.....                | 25      | 0              | 25     |
| <b>OHIO.</b>                                                 |         |                |        |
| Laura Memorial Woman's Medical College .....                 | 1       | 0              | 1      |
| Medical College of Western Reserve University ....           | 1       | 0              | 1      |
| Cleveland Homeopathic Medical College .....                  | 1       | 0              | 1      |
| Ohio Medical College .....                                   | 0       | 1 <sup>6</sup> | 1      |
| Toledo Medical College .....                                 | 1       | 0              | 1      |
| <b>PENNSYLVANIA.</b>                                         |         |                |        |
| University of Pennsylvania, Medical Department..             | 11      | 0              | 11     |
| Jefferson Medical College.....                               | 4       | 0              | 4      |
| Medico-Chirurgical College of Philadelphia.....              | 3       | 1 <sup>7</sup> | 4      |
| Hahnemann Medical College and Hospital.....                  | 7       | 2 <sup>8</sup> | 9      |
| <b>TENNESSEE.</b>                                            |         |                |        |
| Memphis Hospital Medical College.....                        | 1       | 0              | 1      |
| University of Tennessee, Medical Department.....             | 1       | 0              | 1      |
| University of the South, Medical Department.....             | 4       | 0              | 4      |
| <b>VERMONT.</b>                                              |         |                |        |
| Medical Department, University of Vermont.....               | 9       | 0              | 9      |
| <b>VIRGINIA.</b>                                             |         |                |        |
| Medical Department, University of Virginia .....             | 1       | 0              | 1      |
| Medical College of Virginia.....                             | 1       | 0              | 1      |
| <b>CANADA.</b>                                               |         |                |        |
| McGill University, Medical Department.....                   | 10      | 0              | 10     |
| Queen's University.....                                      | 3       | 1 <sup>9</sup> | 4      |
| Trinity Medical College.....                                 | 10      | 0              | 10     |
| University of Toronto.....                                   | 1       | 0              | 1      |

<sup>1</sup> Class of 1897.<sup>2</sup> One, class of 1898 (2d examination).<sup>3</sup> One, class of 1899.<sup>4</sup> One each, classes 1885, 1898 (3d examination).<sup>5</sup> Two, class of 1899.<sup>6</sup> Class of 1881.<sup>7</sup> Class of 1895.<sup>8</sup> One, class of 1898.<sup>9</sup> Class of 1899 (2d examination).

| Name of college.                                                            | Passed. | Failed.        | Total. |
|-----------------------------------------------------------------------------|---------|----------------|--------|
| Victoria University.....                                                    | 1       | 0              | 1      |
| <b>FOREIGN.</b>                                                             |         |                |        |
| University of Basel.....                                                    | 1       | 0              | 1      |
| University of Berlin.....                                                   | 1       | 2 <sup>1</sup> | 3      |
| University of Bologna.....                                                  | 0       | 1 <sup>2</sup> | 1      |
| University of Genoa.....                                                    | 1       | 0              | 1      |
| License to practise medicine in German empire....                           | 1       | 0              | 1      |
| University, of Glasgow.....                                                 | 1       | 0              | 1      |
| Imperial University of Jurjeff (Dorpat).....                                | 1       | 0              | 1      |
| Junta directiva de instruction publica del distrito<br>federal, Mexico..... | 0       | 1 <sup>3</sup> | 1      |
| University of Koenigsberg.....                                              | 1       | 0              | 1      |
| University of Lausanne.....                                                 | 1       | 0              | 1      |
| University of Leipzig.....                                                  | 1       | 0              | 1      |
| University of Naples.....                                                   | 7       | 4 <sup>4</sup> | 11     |
| University of Palermo.....                                                  | 1       | 0              | 1      |
| Rostock University.....                                                     | 0       | 1 <sup>5</sup> | 1      |
| Royal College of Surgeons, England.....                                     | 1       | 0              | 1      |
| Royal College of Physicians and Surgeons, Edin-<br>burgh.....               | 1       | 0              | 1      |
| University of Turin.....                                                    | 0       | 1 <sup>6</sup> | 1      |
| University of Yassy.....                                                    | 1       | 0              | 1      |
|                                                                             | 648     | 63             | 711    |

### ALBANY.

#### ALBANY MEDICAL COLLEGE (MEDICAL DEPARTMENT OF UNION UNIVERSITY).

*Entrance Requirements.*—A medical student's certificate from the regents of the University of the State of New York.<sup>7</sup>

*Length of Course.*—Four years, of seven months each.

#### *Fees.*—

|                                         |   |   |   |   |         |
|-----------------------------------------|---|---|---|---|---------|
| Matriculation, each year                | - | - | - | - | \$ 5.00 |
| Tuition, each year                      | - | - | - | - | 100.00  |
| Tuition, for the four years, in advance | - | - | - | - | 300.00  |
| Graduation                              | - | - | - | - | 25.00   |

In addition, fees of from \$5 to \$15 for various laboratory courses.

<sup>1</sup> One each, classes 1898, 1899.

<sup>2</sup> Class of 1897 (4th examination).

<sup>3</sup> Class of 1877.

<sup>4</sup> One each, classes 1889 (4th examination), 1891 (5th examination), 1892, 1897 (2d examination).

<sup>5</sup> Class of 1896.

<sup>6</sup> Class of 1899.

<sup>7</sup> See Vol. IV, p. 80.

*Graduates in 1900.*—26, of whom 4 had academic degrees.  
*Students enrolled 1899-1900.*—

|                             | Number. | Academic degrees. |
|-----------------------------|---------|-------------------|
| Fourth-year class - - - - - | 29      | 4                 |
| Third-year " - - - - -      | 26      | 1                 |
| Second-year " - - - - -     | 25      | 5                 |
| First-year " - - - - -      | 44      | 6                 |
| Total - - - - -             | 124     | 16                |

## FACULTY.

|                                                                                                   |                                                                                                                      |
|---------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| A. V. Raymond, D.D., LL.D.,<br><i>President of the University.</i>                                | William Hailes, M.D.<br><i>Pathologic Anatomy, Embryology, Histology, and Fractures and Dislocations.</i>            |
| Albert Vander Veer, M.D., Ph.D.,<br>Dean.<br><i>Didactic, Abdominal and Clincial Surgery.</i>     | C. S. Merrill, M.D.<br><i>Ophthalmology and Otology.</i>                                                             |
| Maurice Perkins, M.D.<br><i>Chemical Philosophy and Organic Chemistry.</i>                        | F. C. Curtis, M.D.<br><i>Dermatology.</i>                                                                            |
| J. M. Bigelow, M.D., Ph.D.<br><i>(Emeritus) Materia Medica and Therapeutics, Nose and Throat.</i> | Henry Hun, M.D.<br><i>Diseases of the Nervous System.</i>                                                            |
| S. B. Ward, M.D., Ph.D.<br><i>Theory and Practice of Medicine.</i>                                | S. R. Morrow, M.D.<br><i>Anatomy, Orthopedic and Operative Surgery.</i>                                              |
| J. P. Boyd, M.D.<br><i>Obstetrics, Gynecology, and Diseases of Children.</i>                      | H. C. Gordinier, M.D.<br><i>Physiology.</i>                                                                          |
| W. G. Tucker, M.D., Ph.D., Registrar.<br><i>Inorganic and Analytic Chemistry and Toxicology.</i>  | Howard Van Rensselaer, M.D.<br><i>Materia Medica and Therapentica. (Adjunct of Theory and Practice of Medicine.)</i> |

## ADJUNCT PROFESSORS.

|                                                                                                                |                                                                                 |
|----------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|
| J. D. Craig, M.D.<br><i>Anatomy (Demonstrator of Anatomy, Curator of Museum).</i>                              | J. V. Hennessy, M.D.<br><i>Materia Medica.</i>                                  |
| W. G. MacDonald, M.D.<br><i>Surgery.</i>                                                                       | Andrew MacFarlane, M.D.<br><i>Medical Jurisprudence and Physical Diagnosis.</i> |
| George Blumer, M.D.<br><i>Histology, Pathology and Bacteriology, (Director of Bender Hygienic Laboratory).</i> |                                                                                 |

## CLINICAL PROFESSORS.

|                                                  |                                                         |
|--------------------------------------------------|---------------------------------------------------------|
| Herman Bendell, M.D.<br><i>Otology.</i>          | C. B. Herrick, M.D.<br><i>Railway Surgery.</i>          |
| T. F. C. VanAllen, M.D.<br><i>Ophthalmology.</i> | A. G. Root, M.D.<br><i>Diseases of Throat and Nose.</i> |

## LECTURERS.

- |                                                                                                                                                                                              |                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| <p>L. H. Neuman, M.D.<br/><i>Symptomatology, Diseases of the Stomach and Intestines (Instructor in Theory and Practice.)</i></p> <p>W. O. Stillman, M.D.<br/><i>History of Medicine.</i></p> | <p>J. M. Mosher, M.D.<br/><i>Insanity, Neurology and Electrotherapeutics.</i></p> <p>H. J. Lipea, M.D.<br/><i>Obstetrics.</i></p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|

## INSTRUCTORS.

- |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>G. E. Lochner, M.D.<br/><i>Obstetrics.</i></p> <p>C. H. Moore, M.D.<br/><i>Ophthalmology and Otology.</i></p> <p>T. W. Jenkins, M.D.<br/><i>Histology and Pathologic Anatomy.</i></p> <p>J. A. Ryan, M.D.<br/><i>Surgery.</i></p> <p>W. S. Hale, M.D.<br/><i>Anatomy.</i></p> <p>C. F. Theisen, M.D.<br/><i>Throat and Nose.</i></p> <p>L. B. Winne, M.D.<br/><i>Clinical Medicine.</i></p> <p>J. M. Moore, M.D.<br/><i>Orthopedics.</i></p> <p>C. H. Richardson, M.D.<br/><i>Surgery.</i></p> <p>T. J. Bradley, Ph.G.<br/><i>Chemistry.</i></p> | <p>S. L. Dawes, M.D.<br/><i>Theory and Practice of Medicine.</i></p> <p>W. H. Happel, M.D.<br/><i>Therapeutics.</i></p> <p>Arthur Sautter, M.D.<br/><i>Dermatology.</i></p> <p>W. H. Everett, M.D.<br/><i>Embryology.</i></p> <p>A. W. Elting, M.D.<br/><i>Surgery.</i></p> <p>J. W. Wiltse, M.D.<br/><i>Materia Medica.</i></p> <p>H. L. K. Shaw, M.D.<br/><i>Diseases of Children.</i></p> <p>A. H. Traver, M.D.<br/><i>Surgery.</i></p> <p>E. R. Stillman, M.D.<br/><i>Physiology.</i></p> <p>E. A. Vander Veer, M.D.<br/><i>Surgery.</i></p> |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## CLINICAL ASSISTANTS.

H. S. Pearse, M.D., W. H. George, M.D., M. D. Stevenson, M.D., W. I. Goewey, M.D., R. H. Tedford, Jr., M.D., F. N. Guyer, M.D.

—Announcement for Session of 1900-1901.

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Connecticut .....   | 2       | 0              | 2      |
| Idaho .....         | 1       | 1 <sup>1</sup> | 2      |
| Massachusetts ..... | 4       | 2 <sup>2</sup> | 6      |
| New York .....      | 30      | 3 <sup>3</sup> | 33     |
| Pennsylvania .....  | 1       | 0              | 1      |

<sup>1</sup> Class of 1867.

<sup>2</sup> One each, classes 1892, 1894.

<sup>3</sup> One each, classes 1895 (8th examination), 1897 (3d examination), 1898 (6th examination).

## BROOKLYN.

## LONG ISLAND COLLEGE HOSPITAL.

(SEE VOL. IV, p. 593.)

*Graduates in 1900.*—14, of whom 3 had academic degrees.*Students enrolled 1899-1900.*—157, of whom 14 had academic degrees.

## FACULTY.

*Drop:* A. J. C. Skene, M.D., LL.D.

—42d Annual Announcement for 1900.

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Connecticut .....   | 1       | 0              | 1      |
| Maine.....          | 2       | 0              | 2      |
| Massachusetts ..... | 2       | 1 <sup>1</sup> | 3      |
| New Hampshire.....  | 2       | 0              | 2      |
| New Jersey.....     | 1       | 1              | 2      |
| New York.....       | 38      | 8 <sup>2</sup> | 46     |
| Pennsylvania .....  | 2       | 0              | 2      |

## BUFFALO.

## UNIVERSITY OF BUFFALO, MEDICAL DEPARTMENT.

(SEE VOL. IV, p. 594.)

*Graduates in 1900.*—48, of whom 3 had academic degrees.*Students enrolled 1899-1900.*—

|                          | Number. | Academic degrees. |
|--------------------------|---------|-------------------|
| Post-graduates - - - - - | 4       | .                 |
| Seniors - - - - -        | 57      | 3                 |
| Juniors - - - - -        | 47      | 2                 |
| Sophomores - - - - -     | 43      | 4                 |
| Freshmen - - - - -       | 69      | 5                 |
| Specials - - - - -       | 1       | .                 |
| Total - - - - -          | 221     | 14                |

## FACULTY.

*Add:* F. C. Busch, B.S., M.D., *Physiology.*

—55th Annual Announcement for Session of 1900-1901.

## STATE EXAMINATIONS, 1900.

|               | Passed. | Failed.        | Total. |
|---------------|---------|----------------|--------|
| Arizona ..... | 1       | 0              | 1      |
| New York..... | 48      | 2 <sup>2</sup> | 50     |
| Ohio .....    | 1       | 0              | 1      |
| Oregon.....   | 1       | 0              | 1      |

<sup>1</sup> Class of 1896.<sup>2</sup> One each, classes 1893, 1896 (8th examination), 1897 (8th examination), 1898 (5th examination); two, class of 1899 (one, 2d examination).<sup>3</sup> One each, classes 1895 (7th examination), 1899 (2d examination).

## NEW YORK.

## COLLEGE OF PHYSICIANS AND SURGEONS (MEDICAL DEPARTMENT, COLUMBIA UNIVERSITY).

(SEE VOL. IV, p. 596.)

*Graduates in 1900.*—165, of whom 63 had academic degrees.*Students enrolled 1900-1901.*—

|                            | Number. | Academic degrees. |
|----------------------------|---------|-------------------|
| Fourth year - - - - -      | 147     | 69                |
| Third " - - - - -          | 150     | 59                |
| Second " - - - - -         | 190     | 63                |
| First " - - - - -          | 239     | 85                |
| Special students - - - - - | 49      | 9                 |
| Total - - - - -            | 775     | 285               |

## FACULTY.

*Drop:* T. M. Markoe, M.D., T. G. Thomas, M.D., J. T. Metcalfe, M.D., Edward Curtis, M.D. J. D. Voorhees, M.D. is Secretary.

—*Catalogue, 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                           | Passed. | Failed.        | Total. |
|---------------------------|---------|----------------|--------|
| Alabama .....             | 3       | 0              | 3      |
| Connecticut .....         | 3       | 2              | 5      |
| District of Columbia..... | 2       | 0              | 2      |
| Maine.....                | 2       | 0              | 2      |
| Massachusetts .....       | 1       | 1              | 2      |
| Montana .....             | 0       | 1 <sup>1</sup> | 1      |
| New Hampshire .....       | 1       | 0              | 1      |
| New Jersey .....          | 5       | 0              | 5      |
| New York.....             | 159     | 4 <sup>2</sup> | 163    |
| North Carolina .....      | 1       | 0              | 1      |
| Virginia.....             | 1       | 0              | 1      |

## CORNELL UNIVERSITY MEDICAL COLLEGE.

(SEE VOL. IV, p. 598.)

*Graduates in 1900.*—58.*Students enrolled 1899-1900.*—

|                       | Number. | Academic degrees. |
|-----------------------|---------|-------------------|
| At New York - - - - - | 244     | 38                |
| At Ithaca - - - - -   | 82      | 7                 |
| Total - - - - -       | 326     | 45                |

—*Announcement for Session of 1900-1901.*<sup>1</sup> Class of 1898—2d examination.<sup>2</sup> One, class of 1898—2d examination.

## STATE EXAMINATIONS, 1900.

|                   | Passed. | Failed.        | Total. |
|-------------------|---------|----------------|--------|
| Connecticut ..... | 2       | 0              | 2      |
| New Jersey .....  | 2       | 0              | 2      |
| New York .....    | 49      | 2 <sup>1</sup> | 51     |
| Virginia .....    | 1       | 0              | 1      |

ECLECTIC MEDICAL COLLEGE OF THE CITY OF NEW YORK.  
(SEE VOL. IV, p. 603.)

*Graduates in 1900.*—13, of whom 3 had academic degrees.

*Students enrolled 1899-1900.*—83, of whom 2 had academic degrees.

—*Annual Announcement for Session of 1900-1901.*

## STATE EXAMINATION, 1900.

|                | Passed. | Failed. | Total. |
|----------------|---------|---------|--------|
| New York ..... | 15      | 2       | 17     |

THE NEW YORK HOMEOPATHIC MEDICAL COLLEGE AND HOSPITAL  
(SEE VOL. IV, p. 601.)

*Fees.*—

Tuition, first and second years, each - - - \$100.00

*Graduates in 1900.*—36, of whom 6 had academic degrees.

*Students enrolled 1899-1900.*—122, of whom 16 had academic degrees.

## FACULTY.

*Drop:* E. H. Porter, M.D.

*Add:* F. J. Nott, M.D., *Theory and Practice of Medicine*; G. W. Schurman, Esq., *Medical Jurisprudence*.

—*Annual Announcement, 1900.*

## STATE EXAMINATIONS, 1900.

|                            | Passed. | Failed. | Total. |
|----------------------------|---------|---------|--------|
| District of Columbia ..... | 1       | 0       | 1      |
| Illinois .....             | 1       | 0       | 1      |
| New Jersey .....           | 1       | 0       | 1      |
| New York .....             | 31      | 0       | 31     |

NEW YORK MEDICAL COLLEGE AND HOSPITAL FOR WOMEN.  
(SEE VOL. IV, p. 604.)

## STATE EXAMINATION, 1900.

|                | Passed. | Failed. | Total. |
|----------------|---------|---------|--------|
| New York ..... | 5       | 0       | 5      |

THE UNIVERSITY AND BELLEVUE HOSPITAL MEDICAL COLLEGE.  
(SEE VOL. IV, p. 600.)

*Graduates in 1900.*—Not given in the announcement.

*Students enrolled.*—Not given in the announcement.

—*Announcement for Session of 1900-1901.*

<sup>1</sup> One, class of 1899.



## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Illinois.....       | I       | 0              | I      |
| Massachusetts ..... | I       | 0              | I      |
| Montana .....       | 2       | 0              | 2      |
| New York.....       | 48      | 4 <sup>1</sup> | 52     |
| Ohio .....          | I       | 0              | I      |
| Pennsylvania .....  | 0       | 2 <sup>2</sup> | 2      |

## SYRACUSE.

## COLLEGE OF MEDICINE, SYRACUSE UNIVERSITY.

(SEE VOL. IV, p. 605.)

*Graduates in 1900.*—24, of whom 3 had academic degrees.*Students enrolled 1899-1900.*—

|                            | Number. | Academic<br>degrees. |
|----------------------------|---------|----------------------|
| Fourth year - - - - -      | 23      | 2                    |
| Third " - - - - -          | 17      | 2                    |
| Second " - - - - -         | 21      | 1                    |
| First " - - - - -          | 42      | 2                    |
| Special students - - - - - | 6       | 3                    |
| Total - - - - -            | 109     | 10                   |

## FACULTY.

*Drop:* W. M. Smith, A.M., M.D.—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| Iowa.....           | I       | 0       | I      |
| Maine.....          | I       | 0       | I      |
| New York.....       | 25      | 0       | 25     |
| North Carolina..... | I       | 0       | I      |

## NORTH CAROLINA.

(SEE VOL. II, p. 756.)

In the law quoted in Vol. II, any one was privileged to take the state examination. An amendment now limits this privilege to those who are graduates in medicine from colleges with a course of not less than three years, or possess a license to practise in another state issued after an examination before a state board of examiners.

<sup>1</sup> Two, class of 1899.<sup>2</sup> One, 2d examination.

*Executive Officer of the Board.*—Dr. Thomas E. Anderson,  
Secretary, Statesville.

### EXAMINATIONS, 1900.

| Name of college.                                                   | Passed. | Failed. | Total. |
|--------------------------------------------------------------------|---------|---------|--------|
| <b>COLORADO.</b>                                                   |         |         |        |
| University of Colorado, School of Medicine.....                    | 0       | 1       | 1      |
| <b>DISTRICT OF COLUMBIA.</b>                                       |         |         |        |
| Columbian University, Medical School.....                          | 1       | 0       | 1      |
| Georgetown University, School of Medicine .....                    | 0       | 1       | 1      |
| <b>GEORGIA.</b>                                                    |         |         |        |
| Atlanta College of Physicians and Surgeons .....                   | 2       | 2       | 4      |
| Southern Medical College of Atlanta.....                           | 1       | 4       | 5      |
| University of Georgia, Medical Department.....                     | 0       | 1       | 1      |
| <b>KENTUCKY.</b>                                                   |         |         |        |
| Kentucky School of Medicine.....                                   | 1       | 0       | 1      |
| <b>MARYLAND.</b>                                                   |         |         |        |
| Baltimore Medical College.....                                     | 3       | 0       | 3      |
| University of Maryland, School of Medicine.....                    | 9       | 1       | 10     |
| <b>MASSACHUSETTS.</b>                                              |         |         |        |
| Medical School of Harvard University.....                          | 1       | 0       | 1      |
| <b>MICHIGAN.</b>                                                   |         |         |        |
| University of Michigan, Department of Medicine<br>and Surgery..... | 1       | 0       | 1      |
| <b>NEW YORK.</b>                                                   |         |         |        |
| College of Physicians and Surgeons (Columbia)...                   | 1       | 0       | 1      |
| Woman's Medical College of the New York Infirmary.....             | 2       | 0       | 2      |
| College of Medicine, Syracuse University.....                      | 1       | 0       | 1      |
| <b>NORTH CAROLINA.</b>                                             |         |         |        |
| North Carolina Medical College.....                                | 4       | 1       | 5      |
| Leonard Medical School, Shaw University.....                       | 2       | 0       | 2      |
| <b>OHIO.</b>                                                       |         |         |        |
| Starling Medical College.....                                      | 0       | 1       | 1      |
| <b>PENNSYLVANIA.</b>                                               |         |         |        |
| University of Pennsylvania, Medical Department..                   | 3       | 0       | 3      |
| Jefferson Medical College.....                                     | 2       | 0       | 2      |
| <b>SOUTH CAROLINA.</b>                                             |         |         |        |
| Medical College of the State of South Carolina....                 | 3       | 1       | 4      |
| <b>TENNESSEE.</b>                                                  |         |         |        |
| Chattanooga Medical College.....                                   | 0       | 2       | 2      |
| Tennessee Medical College.....                                     | 0       | 3       | 3      |
| Medical Department of the University of Nashville.                 | 1       | 1       | 2      |
| University of Tennessee, Medical Department .....                  | 3       | 0       | 3      |
| Meharry Medical Department of Central Tennessee<br>College.....    | 2       | 0       | 2      |

| Name of college.                                   | Passed.  | Failed.  | Total.   |
|----------------------------------------------------|----------|----------|----------|
| <b>VIRGINIA.</b>                                   |          |          |          |
| Medical College of Virginia.....                   | 3        | 1        | 4        |
| University College of Medicine....                 | 10       | 2        | 12       |
| <b>CANADA.</b>                                     |          |          |          |
| College of Physicians and Surgeons of Ontario..... | 1        | 0        | 1        |
|                                                    | <hr/> 57 | <hr/> 22 | <hr/> 79 |

## CHAPEL HILL.

THE MEDICAL SCHOOL, UNIVERSITY OF NORTH CAROLINA.

(SEE VOL. IV, p. 653.)

*Entrance Requirements.*—Those of the Association of American Medical Colleges<sup>1</sup>.

*Length of Course.*—The one year's course has been abandoned, leaving but the two years' course.

*Students enrolled 1899-1900.*—

|             |   |   |   |   |   | Number.  | Academic<br>degrees. |
|-------------|---|---|---|---|---|----------|----------------------|
| Second year | - | - | - | - | - | 14       | 1                    |
| First year  | - | - | - | - | - | 30       | 3                    |
|             |   |   |   |   |   | <hr/> 44 | <hr/> 4              |
| Total       | - | - | - | - | - | 44       | 4                    |

—Catalogue, 1899-1900.

## DAVIDSON.

NORTH CAROLINA MEDICAL COLLEGE.

(SEE VOL. IV, p. 606.)

*Graduates in 1900.*—7.

*Students enrolled 1899-1900.*—37.

—Catalogue for 7th Session.

## STATE EXAMINATION, 1900.

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| North Carolina..... | 4       | 1       | 5      |

## RALEIGH.

LEONARD MEDICAL SCHOOL, SHAW UNIVERSITY.

(SEE VOL. IV, p. 607.)

*Graduates in 1900.*—13.

*Students enrolled 1899-1900.*—

|            |   |   |   |   |   |       |    |
|------------|---|---|---|---|---|-------|----|
| Seniors    | - | - | - | - | - | -     | 14 |
| Juniors    | - | - | - | - | - | -     | 20 |
| Sophomores | - | - | - | - | - | -     | 21 |
| Freshmen   | - | - | - | - | - | -     | 25 |
|            |   |   |   |   |   | <hr/> |    |
| Total      | - | - | - | - | - | -     | 80 |

—Catalogue, 1899-1900.

<sup>1</sup> See Vol. IV, p. 455.

**STATE EXAMINATIONS, 1900.**

|                      | Passed. | Failed. | Total |
|----------------------|---------|---------|-------|
| North Carolina.....  | 2       | 0       | 2     |
| South Carolina ..... | 1       | 4       | 5     |
| Virginia.....        | 4       | 3       | 7     |

**NORTH DAKOTA.**

(SEE VOL. II, p. 757.)

Any one who can submit evidence of having attended three courses of lectures, whether graduating or not, is eligible for an examination for licensure.

*Executive Officer of the Board.*—Dr. H. M. Wheeler, Secretary, Grand Forks.

**EXAMINATIONS, 1900.**

| Name of college.                                                          | Passed. | Failed.        | Total. |
|---------------------------------------------------------------------------|---------|----------------|--------|
| <b>ILLINOIS.</b>                                                          |         |                |        |
| College of Physicians and Surgeons.....                                   | 1       | 1 <sup>1</sup> | 2      |
| Rush Medical College.....                                                 | 7       | 0              | 7      |
| Chicago Homeopathic Medical College.....                                  | 1       | 1 <sup>2</sup> | 2      |
| Illinois Medical College.....                                             | 1       | 0              | 1      |
| <b>IOWA.</b>                                                              |         |                |        |
| Keokuk Medical College .....                                              | 0       | 1 <sup>1</sup> | 1      |
| <b>MARYLAND.</b>                                                          |         |                |        |
| Baltimore Medical College.....                                            | 1       | 0              | 1      |
| <b>MICHIGAN.</b>                                                          |         |                |        |
| Detroit College of Medicine.....                                          | 3       | 0              | 3      |
| <b>MINNESOTA.</b>                                                         |         |                |        |
| College of Medicine and Surgery, University of Minnesota.....             | 7       | 0              | 7      |
| College of Homeopathic Medicine and Surgery, University of Minnesota..... | 1       | 0              | 1      |
| Hamline University, College of Medicine.....                              | 3       | 0              | 3      |
| <b>MISSOURI.</b>                                                          |         |                |        |
| Kansas City Medical College.....                                          | 1       | 1 <sup>3</sup> | 2      |
| <b>OHIO.</b>                                                              |         |                |        |
| Miami Medical College.....                                                | 0       | 1 <sup>4</sup> | 1      |
| Pulte Medical College.....                                                | 0       | 1 <sup>5</sup> | 1      |
| <b>PENNSYLVANIA.</b>                                                      |         |                |        |
| Jefferson Medical College.....                                            | 1       | 0              | 1      |

<sup>1</sup> Class of 1897.<sup>2</sup> Class of 1895.<sup>3</sup> Class of 1898.<sup>4</sup> Class of 1886.<sup>5</sup> Class of 1884.

| Name of college.                           | Passed.  | Failed.        | Total.   |
|--------------------------------------------|----------|----------------|----------|
| <b>WISCONSIN.</b>                          |          |                |          |
| Milwaukee Medical College.....             | 2        | 1 <sup>1</sup> | 3        |
| <b>CANADA.</b>                             |          |                |          |
| Laval University, Medical Department.....  | 1        | 0              | 1        |
| McGill University, Medical Department..... | 1        | 0              | 1        |
| Manitoba Medical College.....              | 2        | 0              | 2        |
| Toronto University, Medical Faculty.....   | 4        | 0              | 4        |
| Trinity Medical College.....               | 1        | 0              | 1        |
| <b>FOREIGN.</b>                            |          |                |          |
| University at Christiania.....             | 1        | 0              | 1        |
| University of Vienna.....                  | 1        | 0              | 1        |
|                                            | <hr/> 40 | <hr/> 7        | <hr/> 47 |

## OHIO.

(SEE VOL. IV, p. 750.)

All applicants for examination before the Ohio board of examiners must present evidence of having completed a high-school course covering four years, or present a certificate of passing the board's preliminary examination, of attending four courses of medical instruction and graduated from a medical college.

*Executive Officer of the Board.*—Dr. Frank Winders, Secretary, Columbus.

## EXAMINATIONS, 1900.

| Name of college.                                   | Passed. | Failed.        | Total. |
|----------------------------------------------------|---------|----------------|--------|
| <b>ILLINOIS.</b>                                   |         |                |        |
| Northwestern University Medical School .....       | 1       | 0              | 1      |
| Hahnemann Medical College and Hospital of Chicago  | 3       | 0              | 3      |
| <b>INDIANA.</b>                                    |         |                |        |
| Medical College of Indiana.....                    | 0       | 1 <sup>2</sup> | 1      |
| <b>KENTUCKY.</b>                                   |         |                |        |
| Hospital College of Medicine.....                  | 1       | 0              | 1      |
| University of Louisville, Medical Department.....  | 0       | 1 <sup>3</sup> | 1      |
| <b>MARYLAND.</b>                                   |         |                |        |
| College of Physicians and Surgeons.....            | 1       | 0              | 1      |
| <b>NEW YORK.</b>                                   |         |                |        |
| University of Buffalo, Medical Department.....     | 1       | 0              | 1      |
| University and Bellevue Hospital Medical College.. | 1       | 0              | 1      |
| <b>OHIO.</b>                                       |         |                |        |
| Medical College of Ohio.....                       | 1       | 0              | 1      |
| Eclectic Medical Institute.....                    | 1       | 0              | 1      |

<sup>1</sup> Class of 1896.<sup>2</sup> Class of 1875.<sup>3</sup> Class of 1893.

| Name of college.                                  | Passed.  | Failed.        | Total.   |
|---------------------------------------------------|----------|----------------|----------|
| Columbus Medical College .....                    | 1        | 0              | 1        |
| Starling Medical College.....                     | 0        | 1 <sup>1</sup> | 1        |
| PENNSYLVANIA.                                     |          |                |          |
| University of Pennsylvania, Medical Department... | 1        | 0              | 1        |
| Jefferson Medical College.....                    | 1        | 0              | 1        |
| FOREIGN.                                          |          |                |          |
| Royal University of Naples, Italy.....            | 0        | 1 <sup>2</sup> | 1        |
|                                                   | <hr/> 13 | <hr/> 4        | <hr/> 17 |

## CINCINNATI.

## THE CINCINNATI COLLEGE OF MEDICINE AND SURGERY.

*Entrance Requirements.*—Those of the Ohio State Board of Medical Registration and Examination, as follows:— On certificate; the first degree from a reputable college; a diploma from a normal school, high school or academy, legally constituted, issued after four years of study; a teacher's permanent or life certificate; a medical student's certificate issued upon examination by any state board; a student's certificate of examination to the Freshman class of a reputable literary or scientific college.

By examination before an examiner of the Ohio state board—held in October and including the following: Orthography, English grammar, English composition, rhetoric, geography, Latin, arithmetic, algebra, physics, botany, and United States history.

*Length of Course.*—Four years, of seven months each.

*Fees.*—

|                                      |         |
|--------------------------------------|---------|
| Tuition, each year - - - - -         | \$75.00 |
| Hospital ticket, each year - - - - - | 5.00    |
| Final examination - - - - -          | 25.00   |

*Graduates in 1900.*—13.

*Students enrolled 1899-1900.*—87, of whom one had an academic degree.

## FACULTY.

|                                                                                                |                                                                                                |
|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| R. C. Stockton Reed, A.M., M.D.<br>( <i>Emeritus</i> ) <i>Materia Medica and Therapeutics.</i> | Charles A. L. Reed, A.M., M.D.<br>( <i>Emeritus</i> ) <i>Gynecology and Abdominal Surgery.</i> |
| J. Trush, A.M., M.D.<br>( <i>Emeritus</i> ) <i>Theory and Practice of Medicine.</i>            | J. M. Shaller, M.D.<br><i>Physiology, Histology, and Clinical Medicine.</i>                    |

<sup>1</sup> Class of 1875.

<sup>2</sup> Class of 1890.

- W. E. Lewis, M.D., Secretary.  
*Descriptive, Surgical and Practical Anatomy.*
- T. V. Fitzpatrick, Ph.D., M.D., Dean.  
*Laryngology and Otology.*
- W. E. Kiely, M.D.  
*Theory and Practice of Medicine.*
- J. C. Culbertson, A.M., M.D., Treasurer.  
*Practice, Hygiene, and History of Medicine.*
- H. D. Hinckley, A.M., M.D.  
*Principles and Practice of Surgery and Clinical Surgery.*
- Sigmar Stark, M.D.  
*Obstetrics, Clinical Midwifery and Clinical Gynecology.*
- W. H. Wenning, A.M., M.D.  
*Gynecology.*
- Giles S. Mitchell, A.M., M.D.  
*Clinical Gynecology.*
- H. W. Bettmann, B.L., M.D.  
*Theory and Practice of Medicine.*
- Magnus A. Tate, M.D.  
*Diseases of Children.*
- M. A. Brown, M.D.  
*Materia Medica and Therapeutics.*
- C. W. Tangeman, M.D.  
*Ophthalmology.*
- C. T. Pearce, M.D.  
*Dermatology and Venereal Diseases.*
- H. Freudenberg, M.D.  
*Pathology and Bacteriology.*
- T. W. Schmidt, B.S., M.D.  
*Chemistry and Toxicology.*

## LECTURERS.

- Sam Rothenberg, M.D.  
*Obstetrics.*
- A. R. Walker, M.D.  
*Biology.*
- George J. Fisher, M.D.  
*Anatomy.*

## INSTRUCTOR.

- E. S. Johnston, M.D.  
*Latin and Physics.*

## ASSISTANTS.

- J. H. Macready, M.D.  
*Medicine.*
- W. C. Harris, M.D.
- R. F. Reno, M.D.  
*Laryngology and Otology.*
- E. M. Keefe, M.D.  
*Surgery.*
- J. C. Kunz, M.D.  
*Anatomy.*
- E. S. Johnston, M.D.  
*Gynecology.*
- M. Brandenburg, M.D.  
*Materia Medica and Therapeutics.*

—50th Annual Announcement, Session of 1900-1901.

## STATE EXAMINATIONS, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Illinois..... | I       | O       | I      |
| Montana ..... | I       | O       | I      |

## ECLECTIC MEDICAL INSTITUTE.

*Entrance Requirements.*—Diplomas of graduation from graded high school, literary or scientific college, or evidence of having passed the matriculation examination to a recognized college; or, if from New York, a regent's certificate; or if matriculates

who desire to practise in Ohio, an examination certificate issued under the authority of the Ohio State Board of Medical Registration and Examination; or, for matriculates who desire to practise in some other state than New York or Ohio, an examination by an authorized examiner, as follows: English, composition of at least 200 words; higher arithmetic; United States history; geography; elementary physics; and Latin prose.

*Length of Course.*—Four years, of seven months each.

*Fees.*—

|                    |   |   |   |   |   |          |
|--------------------|---|---|---|---|---|----------|
| Tuition, each year | - | - | - | - | - | \$ 75.00 |
| Scholarships       | - | - | - | - | - | 250.00   |
| Graduation         | - | - | - | - | - | 25.00    |
| Hospital           | - | - | - | - | - | 5.00     |

*Graduates in 1901.*—27, of whom 4 had academic degrees.

*Students enrolled 1900-1901.*—

|            |   |   |   |   |   | Number. | Academic<br>degrees. |
|------------|---|---|---|---|---|---------|----------------------|
| Seniors    | - | - | - | - | - | 30      | 4                    |
| Juniors    | - | - | - | - | - | 37      | 3                    |
| Sophomores | - | - | - | - | - | 43      | 2                    |
| Freshmen   | - | - | - | - | - | 32      | 1                    |
| Total      | - | - | - | - | - | 142     | 10                   |

FACULTY.

F. J. Locke, M.D., Dean.

*Materia Medica and Therapeutics.*

J. A. Jeancon, M.D.

*Clinical Diseases of the Chest and Venereal Diseases.*

John Uri Lloyd, Ph.M.

*Chemistry and Pharmacy.*

Rolla L. Thomas, M.D.

*Principles and Practice of Medicine.*

William E. Boyer, M.D.

*Didactic Surgery.*

John K. Scudder, M.D., Secretary.

Robert C. Wintermute, M.D.

*Obstetrics, Gynecology, and Pediatrics, and Clinical Diseases of Women and Children.*

Lyman Watkins, M.D.

*Pathology and Physiology.*

W. L. Dickson, A.M., LL.D.

*Medical Jurisprudence.*

Harvey W. Felter, M.D.

*Anatomy and Chemistry (Adjunct).*

Bishop McMillen, M.D.

*(Emeritus) Nervous and Mental Diseases.*

L. E. Russell, M.D.

*Clinical Surgery and Operative Gynecology.*

John R. Spencer, M.D.

*Electrotherapeutics, Hygiene, and Physical Diagnosis.*

Kent O. Foltz, M.D.

*Didactic and Clinical Ophthalmology, Otolaryngology, Rhinology, and Laryngology.*

OTHER INSTRUCTORS.

George W. Brown, M.D., *Histology, Pathology, and Bacteriology*; H. Ford Scudder, M.D., *Anatomy*; Emerson Venable, A.B., *Physics, and Latin*.

—57th Announcement, Session of 1902-1903.



## STATE EXAMINATIONS, 1900.

|               | Passed. | Failed.        | Total. |
|---------------|---------|----------------|--------|
| Georgia ..... | 1       | 0              | 1      |
| Illinois..... | 2       | 0              | 2      |
| Maine.....    | 0       | 1 <sup>1</sup> | 1      |
| Ohio .....    | 1       | 0              | 1      |
| Oregon.....   | 1       | 0              | 1      |

## THE LAURA MEMORIAL WOMAN'S MEDICAL COLLEGE.

(SEE VOL. IV, p. 611.)

*Entrance Requirements.*—Those who do not possess the necessary certificate, must pass the examination required by the Ohio board.<sup>1</sup>

*Graduates in 1900.*—4, of whom 2 had academic degrees.

*Students enrolled 1899-1900.*—22, of whom 3 had academic degrees.

## FACULTY.

*Drop:* J. L. Cleveland, A.B., M.D., G. F. Sudhoff, M.D., A. G. Drury, A.M., M.D., J. E. Boylan, M.D.

*Add:* C. M. Paul, M.D., *Surgery*; Wm. Muhlberg, M.D., *Physiology*.

—*Circular of Information for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| Massachusetts ..... | 1       | 0       | 1      |
| New York.....       | 1       | 0       | 1      |

## MEDICAL COLLEGE OF OHIO (UNIVERSITY OF CINCINNATI, DEPARTMENT OF MEDICINE).

(SEE VOL. IV, p. 609.)

*Graduates in 1900.*—59.

*Students enrolled 1899-1900.*—

|             |   |   |   |   |   |   |   |     |
|-------------|---|---|---|---|---|---|---|-----|
| Seniors -   | - | - | - | - | - | - | - | 65  |
| Second year | - | - | - | - | - | - | - | 47  |
| First "     | - | - | - | - | - | - | - | 60  |
| Juniors -   | - | - | - | - | - | - | - | 60  |
| Total       | - | - | - | - | - | - | - | 232 |

—*82d Annual Announcement, Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Illinois..... | 2       | 1       | 3      |
| Ohio .....    | 1       | 0       | 1      |

<sup>1</sup> Class of 1887.

<sup>2</sup> See Vol. IV, p. 758.

### MIAMI MEDICAL COLLEGE.

(SEE VOL. IV, p. 610.)

*Graduates in 1900.*—25.

*Students enrolled 1899-1900.*—113.

#### FACULTY.

*Drop* : J. A. Murphy, A.M., M.D.

*Add* : J. H. Eichberg, Ph.G., M.D., *Materia Medica and Therapeutics.*

—*Circular of Information for Session of 1900-1901.*

### STATE EXAMINATION, 1900.

|                   | Passed. | Failed.        | Total. |
|-------------------|---------|----------------|--------|
| North Dakota..... | 0       | 1 <sup>1</sup> | 1      |

### PULTE MEDICAL COLLEGE.

(SEE VOL. IV, p. 613.)

*Entrance Requirements.*—Pulte, in common with the other Ohio medical colleges, has adopted the standard of the Ohio board for admission.<sup>2</sup>

### STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed.        | Total. |
|--------------------|---------|----------------|--------|
| Alabama .....      | 1       | 0              | 1      |
| Maryland .....     | 1       | 0              | 1      |
| North Dakota ..... | 0       | 1 <sup>3</sup> | 1      |
| Pennsylvania ..... | 1       | 0              | 1      |

### CLEVELAND.

THE CLEVELAND COLLEGE OF PHYSICIANS AND SURGEONS (MEDICAL DEPARTMENT OF THE OHIO WESLEYAN UNIVERSITY).

(SEE VOL. IV, p. 614.)

*Graduates in 1900.*—Not given in the announcement.

*Students enrolled 1899-1900.*—

|                           | Number. | Academic degrees. |
|---------------------------|---------|-------------------|
| Senior class - - - - -    | 28      | 5                 |
| Junior class - - - - -    | 17      | 2                 |
| Sophomore class - - - - - | 26      | 3                 |
| Freshman class - - - - -  | 14      | .                 |
| Post-graduates - - - - -  | 3       | .                 |
| Total - - - - -           | 88      | 10                |

—*Announcement for Session of 1900-1901.*

<sup>1</sup> Class of 1886.

<sup>2</sup> See Vol. IV p. 758.

<sup>3</sup> Class of 1884.

## STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed. | Total. |
|--------------------|---------|---------|--------|
| Arizona .....      | 1       | 0       | 1      |
| Pennsylvania ..... | 0       | 1       | 1      |

## THE CLEVELAND HOMOEOPATHIC MEDICAL COLLEGE.

(SEE VOL. IV, p. 617.)

*Graduates in 1900.*—28, of whom 8 had academic degrees.*Students enrolled 1899-1900.*—139, of whom 14 had academic degrees.

## FACULTY.

*Drop* : H. H. Baxter, M.D., W. E. Wells, M.D., Harlan Pomeroy, M.D.,  
F. L. Crobaugh, B.S., M.S., C. S. Cutter, M.D.

*Add*: Frank Kraft, M.D., *Materia Medica*; Joseph Feil, Ph.D., *Chemistry*.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                   | Passed. | Failed.        | Total. |
|-------------------|---------|----------------|--------|
| Maine.....        | 1       | 0              | 1      |
| Minnesota.....    | 0       | 1 <sup>1</sup> | 1      |
| New York.....     | 1       | 0              | 1      |
| Pennsylvania..... | 4       | 1              | 5      |

## THE MEDICAL COLLEGE OF WESTERN RESERVE UNIVERSITY.

(SEE VOL. IV, p. 616.)

*Graduates in 1900.*—30, of whom 7 had academic degrees.*Students enrolled 1899-1900.*—

|                       | Number. | Academic degrees. |
|-----------------------|---------|-------------------|
| Fourth year - - - - - | 33      | 8                 |
| Third " - - - - -     | 25      | 4                 |
| Second " - - - - -    | 36      | 5                 |
| First " - - - - -     | 42      | 5                 |
| Total - - - - -       | 136     | 22                |

## FACULTY.

*Drop* : C. W. Noble.—*Catalogue, 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed. | Total. |
|--------------------|---------|---------|--------|
| Illinois.....      | 2       | 0       | 2      |
| Massachusetts..... | 1       | 0       | 1      |
| New York.....      | 1       | 0       | 1      |
| Oregon.....        | 1       | 0       | 1      |
| Pennsylvania.....  | 2       | 1       | 3      |

<sup>1</sup> Class of 1898.

## COLUMBUS.

## OHIO MEDICAL UNIVERSITY.

(SEE VOL. IV, p. 619.)

*Graduates in 1900.*—50, of whom 8 had academic degrees.*Students enrolled 1899-1900.*—

|                      | Number. | Academic<br>degrees. |
|----------------------|---------|----------------------|
| Seniors - - - - -    | 61      | 8                    |
| Juniors - - - - -    | 45      | 2                    |
| Sophomores - - - - - | 69      | 11                   |
| Freshmen - - - - -   | 57      | ..                   |
| Specials - - - - -   | 3       | ..                   |
| Total - - - - -      | 235     | 21                   |

## FACULTY.

*Drop:* A. E. Evans, A.M., M.D., F. A. Davis, Esq., S. B. Taylor, M.D.,  
N. L. Burner, Ph.D., F.C.S., E. M. Hatton, Ph.G., M.D.

*Add:* L. D. Lilly, A.M., *Medical Jurisprudence*; J. H. J. Upham, M.D.,  
*Principles of Surgery and Clinical Surgery*; E. T. Watson, B.Sc., *Chemistry, and Botany*.

—*Annual Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                    | Passed. | Failed.        | Total. |
|--------------------|---------|----------------|--------|
| Iowa .....         | 0       | 2 <sup>1</sup> | 2      |
| New York .....     | 0       | 1 <sup>1</sup> | 1      |
| Pennsylvania ..... | 3       | 0              | 3      |

## STARLING MEDICAL COLLEGE.

(SEE VOL. IV, p. 618.)

*Graduates in 1900.*—38.*Students enrolled 1899-1900.*—

|                       | Number. | Academic<br>degrees. |
|-----------------------|---------|----------------------|
| First year - - - - -  | 55      | .                    |
| Second year - - - - - | 43      | 7                    |
| Third year - - - - -  | 34      | 4                    |
| Fourth year - - - - - | 41      | .                    |
| Specials - - - - -    | 2       | .                    |
| Total - - - - -       | 175     | 11                   |

## FACULTY.

*Drop:* E. J. Wilson, M.D., T. W. Rankin, M.D., A. B. Richardson,  
A.B., M.D.

*Add:* C. O. Probst, M.D., *Hygiene*.

—*54th Annual Announcement, Session of 1900-1901.*<sup>1</sup> Class of 1888; same person failed twice.<sup>2</sup> Class of 1881.

## STATE EXAMINATIONS, 1900.

|                      | Passed. | Failed.        | Total. |
|----------------------|---------|----------------|--------|
| Illinois.....        | I       | O              | I      |
| North Carolina ..... | O       | I              | I      |
| Ohio .....           | O       | I <sup>1</sup> | I      |
| Oregon....           | O       | I <sup>2</sup> | I      |

## LEBANON.

THE COLLEGE OF MEDICINE, NATIONAL NORMAL UNIVERSITY.  
(SEE VOL. IV, p. 653.)

*Entrance Requirements.*—Those prescribed by the State Board of Medical Registration and Examination of Ohio.<sup>1</sup>

*Students enrolled, 1899-1900.*—26.

## FACULTY.

*Drop:* S. S. Scoville, A.M., M.D., G. Dallas Lind, M.D., Ph.D., Ruth T. C. Barnes, M.D.

B. H. Blair, A.M., M.D., is now the Dean.

—12th Annual Announcement, Session of 1900-1901.

## STATE EXAMINATION, 1900.

|                    | Passed. | Failed. | Total. |
|--------------------|---------|---------|--------|
| Pennsylvania ..... | 2       | O       | 2      |

## TOLEDO.

## TOLEDO MEDICAL COLLEGE.

(SEE VOL. IV, p. 621.)

*Entrance Requirements.*—Those required by the Ohio board.<sup>1</sup>

*Fees.*—The tuition fee is advanced to \$75.00 each year and includes all laboratory fees.

*Graduates in 1900.*—18.

*Students enrolled 1899-1900.*

|                      | Academic<br>Number. degrees. |
|----------------------|------------------------------|
| Seniors - - - - -    | 18                           |
| Juniors - - - - -    | 11                           |
| Sophomores - - - - - | 12                           |
| Freshmen - - - - -   | 35                           |
| Total - - - - -      | 76                           |

<sup>1</sup> Class of 1875.

<sup>2</sup> Class of 1890.

See Vol. IV, p. 758.

## FACULTY.

*Drop:* H. E. Munn, M.D., J. U. Schnetzler, M.D., M. H. Bowman, M.D., L. B. Lockard, M.D.

*Add:* W. D. Stewart, B.S., M.D., *Diseases of Children*; G. F. Suker, M.D., *Bacteriology*; Bernard Becker, M.D., *Histology*.

—20th Announcement, Session of 1900-1901.

## STATE EXAMINATION, 1900.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| New York..... | I       | O       | I      |

## OKLAHOMA.

(SEE VOLS. II, p. 760; III, p. 287.)

To secure a license to practise medicine in Oklahoma, the applicant must either be a graduate in medicine from a reputable medical college, or pass an examination before the territorial board of examiners.

*Executive Officer of the Board.*—Dr. L. Haynes Buxton, Secretary and Superintendent, Territorial Board of Health, President of Examining Board, Oklahoma City.

## OREGON.

(SEE VOL. II, p. 761.)

Passing an examination before the state board of examiners is the only requirement to practise medicine in Oregon.

*Executive Officer of the Board.*—Dr. Byron E. Miller, Secretary, Portland.

## EXAMINATIONS, 1900.

| Name of college.                                                                      | Passed. | Failed. | Total. |
|---------------------------------------------------------------------------------------|---------|---------|--------|
| <b>ARKANSAS.</b>                                                                      |         |         |        |
| Arkansas University, Medical Department.....                                          | I       | O       | I      |
| <b>CALIFORNIA.</b>                                                                    |         |         |        |
| Cooper Medical College .....                                                          | 4       | O       | 4      |
| Medical Department of the College of Physicians<br>and Surgeons of San Francisco..... | I       | O       | I      |
| Medical Department, University of California.....                                     | 2       | O       | 2      |
| <b>COLORADO.</b>                                                                      |         |         |        |
| University of Colorado, School of Medicine.....                                       | I       | O       | I      |
| Denver Homeopathic College and Hospital.....                                          | I       | O       | I      |
| <b>ILLINOIS.</b>                                                                      |         |         |        |
| Rush Medical College. ....                                                            | I       | O       | I      |
| American Medical Missionary College.....                                              | I       | O       | I      |
| <b>INDIANA.</b>                                                                       |         |         |        |
| Central College of Physicians and Surgeons .....                                      | I       | O       | I      |

| Name of college.                                  | Passed. | Failed.        | Total. |
|---------------------------------------------------|---------|----------------|--------|
| <b>IOWA.</b>                                      |         |                |        |
| Iowa College of Physicians and Surgeons.....      | 1       | 0              | 1      |
| College of Physicians and Surgeons of Keokuk .... | 4       | 1 <sup>1</sup> | 5      |
| Keokuk Medical College .....                      | 1       | 0              | 1      |
| <b>KENTUCKY.</b>                                  |         |                |        |
| Kentucky School of Medicine .....                 | 1       | 0              | 1      |
| <b>MICHIGAN.</b>                                  |         |                |        |
| Detroit College of Medicine .....                 | 1       | 0              | 1      |
| <b>MINNESOTA.</b>                                 |         |                |        |
| Hamline University, College of Medicine.....      | 1       | 0              | 1      |
| <b>MISSOURI.</b>                                  |         |                |        |
| University Medical College .....                  | 0       | 1 <sup>2</sup> | 1      |
| Marion-Sims College of Medicine .....             | 1       | 0              | 1      |
| Washington University, Medical Department .....   | 1       | 0              | 1      |
| American Medical College.....                     | 2       | 0              | 2      |
| <b>NEW YORK.</b>                                  |         |                |        |
| University of Buffalo, Medical Department .....   | 1       | 0              | 1      |
| <b>OHIO.</b>                                      |         |                |        |
| Eclectic Medical Institute .....                  | 1       | 0              | 1      |
| Medical College of Western Reserve University.... | 1       | 0              | 1      |
| Starling Medical College .....                    | 0       | 1 <sup>3</sup> | 1      |
| <b>OREGON.</b>                                    |         |                |        |
| Medical Department, University of Oregon .....    | 10      | 0              | 10     |
| Medical Department, Willamette University .....   | 5       | 0              | 5      |
| <b>PENNSYLVANIA.</b>                              |         |                |        |
| Eclectic Medical College of Pennsylvania.....     | 0       | 1 <sup>4</sup> | 1      |
| Jefferson Medical College.....                    | 2       | 0              | 2      |
| <b>TENNESSEE.</b>                                 |         |                |        |
| Vanderbilt University, Medical Department.....    | 2       | 0              | 2      |
| <b>CANADA.</b>                                    |         |                |        |
| McGill University, Medical Department.....        | 1       | 0              | 1      |
| Trinity Medical College .....                     | 1       | 0              | 1      |
| Non-graduates.....                                | 0       | 4              | 4      |
|                                                   | 50      | 8              | 58     |

## PORTLAND.

### MEDICAL DEPARTMENT, UNIVERSITY OF OREGON.

(SEE VOL. IV, p. 622.)

*Entrance Requirements.*—Those of the Association of American Medical Colleges.<sup>5</sup>

<sup>1</sup> Class of 1888—2d examination.

<sup>2</sup> Class of 1892.

<sup>3</sup> Class of 1890.

<sup>4</sup> Class of 1868.

<sup>5</sup> See Vol. IV, p. 455.

*Graduates in 1900.—11.*

*Students enrolled 1899-1900.—67, of whom 10 had academic degrees.*

*—Announcement for Session of 1900-1901.*

### STATE EXAMINATIONS, 1900.

|              | Passed. | Failed.        | Total. |
|--------------|---------|----------------|--------|
| Idaho.....   | 1       | 0              | 1      |
| Iowa.....    | 1       | 0              | 1      |
| Montana..... | 0       | 1 <sup>1</sup> | 1      |
| Oregon.....  | 10      | 0              | 10     |

### SALEM.

#### MEDICAL DEPARTMENT WILLAMETTE UNIVERSITY.

(SEE VOL. IV, p. 623.)

*Graduates in 1900.—5.*

*Students enrolled 1899-1900.—21.*

#### FACULTY.

*Drop:* D. A. Paine, M.D., W. B. Morse, M.D., W. D. Jeffries, M.D., L. L. Rowland, M.D.

*Add:* W. D. McNary, M.D., *Obstetrics*; E. S. Clark, M.D., *Anatomy*; L. F. Griffith, M.D., *Materia Medica*.

*—Announcement for Session of 1900-1901.*

### STATE EXAMINATIONS, 1900.

|             | Passed. | Failed. | Total. |
|-------------|---------|---------|--------|
| Idaho.....  | 1       | 0       | 1      |
| Oregon..... | 5       | 0       | 5      |

### PENNSYLVANIA.

(SEE VOL. II, p. 762.)

Applicants for the state examination for license to practise medicine must submit evidence to the medical council of a preliminary education, equivalent to a high-school course; a medical education covering four years with graduation from a medical school, before appearing before either of the three boards.

*Executive Officer in Charge.*—Hon. James W. Latta, Secretary of Internal Affairs, Secretary of the Medical Council, Harrisburg.

### EXAMINATIONS, 1900.

| Name of college.                                            | Passed. | Failed. | Total. |
|-------------------------------------------------------------|---------|---------|--------|
| CALIFORNIA.                                                 |         |         |        |
| College of Medicine, University of Southern California..... | 1       | 0       | 1      |

<sup>1</sup> Class of 1897.



| Name of college.                                                   | Passed. | Failed.        | Total. |
|--------------------------------------------------------------------|---------|----------------|--------|
| <b>DISTRICT OF COLUMBIA.</b>                                       |         |                |        |
| Columbian University, Medical School .....                         | 1       | 0              | 1      |
| Howard University, Medical Department.....                         | 1       | 0              | 1      |
| <b>ILLINOIS.</b>                                                   |         |                |        |
| College of Physicians and Surgeons.....                            | 1       | 0              | 1      |
| Northwestern University Medical School .....                       | 1       | 0              | 1      |
| Rush Medical College.....                                          | 2       | 0              | 2      |
| Illinois Medical College .....                                     | 0       | 1              | 1      |
| <b>INDIANA.</b>                                                    |         |                |        |
| Medical College of Indiana.....                                    | 1       | 0              | 1      |
| <b>IOWA.</b>                                                       |         |                |        |
| Sioux City College of Medicine .....                               | 1       | 0              | 1      |
| <b>KANSAS.</b>                                                     |         |                |        |
| Kansas Medical College.....                                        | 2       | 0              | 2      |
| <b>KENTUCKY.</b>                                                   |         |                |        |
| Hospital College of Medicine .....                                 | 0       | 1              | 1      |
| University of Louisville, Medical Department.....                  | 1       | 1              | 2      |
| <b>MARYLAND.</b>                                                   |         |                |        |
| Baltimore Medical College.....                                     | 11      | 8 <sup>1</sup> | 19     |
| Baltimore University School of Medicine.....                       | 1       | 9 <sup>2</sup> | 10     |
| College of Physicians and Surgeons.....                            | 3       | 2 <sup>3</sup> | 5      |
| Johns Hopkins University, Medical Department....                   | 4       | 0              | 4      |
| University of Maryland, School of Medicine.....                    | 4       | 0              | 4      |
| Maryland Medical College.....                                      | 3       | 5 <sup>3</sup> | 8      |
| <b>MASSACHUSETTS.</b>                                              |         |                |        |
| Medical School of Harvard University .....                         | 2       | 2              | 4      |
| Boston University School of Medicine .....                         | 1       | 0              | 1      |
| Tufts College Medical School .....                                 | 1       | 0              | 1      |
| <b>MICHIGAN.</b>                                                   |         |                |        |
| University of Michigan, Department of Medicine<br>and Surgery..... | 3       | 0              | 3      |
| <b>MISSOURI.</b>                                                   |         |                |        |
| Marion-Sims College of Medicine .....                              | 0       | 1 <sup>4</sup> | 1      |
| St. Louis College of Physicians and Surgeons.....                  | 1       | 0              | 1      |
| <b>NEW HAMPSHIRE.</b>                                              |         |                |        |
| Dartmouth College, Medical School.....                             | 1       | 0              | 1      |
| <b>NEW YORK.</b>                                                   |         |                |        |
| Albany Medical College.....                                        | 1       | 0              | 1      |
| Long Island College Hospital.....                                  | 2       | 0              | 2      |
| University and Bellevue Hospital Medical College.                  | 0       | 2 <sup>3</sup> | 2      |

<sup>1</sup> Two, 2d, and two, 3d examinations.<sup>2</sup> Three, 2d, one, 3d, and one, 4th examinations.<sup>3</sup> One, 2d examination.<sup>4</sup> 2d examination.

| Name of college.                                   | Passed. | Failed.         | Total. |
|----------------------------------------------------|---------|-----------------|--------|
| <b>OHIO.</b>                                       |         |                 |        |
| Pulte Medical College.....                         | 1       | 0               | 1      |
| Cleveland College of Physicians and Surgeons....   | 0       | 1               | 1      |
| Medical College of Western Reserve University .... | 2       | 1               | 3      |
| Cleveland Homeopathic Medical College .....        | 4       | 1               | 5      |
| Ohio Medical University .....                      | 3       | 0               | 3      |
| College of Medicine, National Normal University .. | 2       | 0               | 2      |
| <b>PENNSYLVANIA.</b>                               |         |                 |        |
| University of Pennsylvania, Medical Department..   | 127     | 6 <sup>1</sup>  | 133    |
| Jefferson Medical College.....                     | 43      | 6 <sup>2</sup>  | 49     |
| Woman's Medical College of Pennsylvania.....       | 18      | 0               | 18     |
| Medico-Chirurgical College of Philadelphia.....    | 19      | 8 <sup>3</sup>  | 27     |
| Hahnemann Medical College and Hospital.....        | 29      | 4 <sup>4</sup>  | 33     |
| Western Pennsylvania Medical College.....          | 60      | 14 <sup>5</sup> | 74     |
| <b>TENNESSEE.</b>                                  |         |                 |        |
| University of the South, Medical Department.....   | 1       | 3 <sup>6</sup>  | 4      |
| <b>VERMONT.</b>                                    |         |                 |        |
| Medical Department, University of Vermont .....    | 1       | 1               | 2      |
| <b>VIRGINIA.</b>                                   |         |                 |        |
| Medical Department, University of Virginia .....   | 1       | 0               | 1      |
| Medical College of Virginia.....                   | 2       | 0               | 2      |
| <b>CANADA.</b>                                     |         |                 |        |
| Toronto University, Medical Faculty.....           | 2       | 0               | 2      |
| Trinity Medical College .....                      | 1       | 0               | 1      |
| <b>FOREIGN.</b>                                    |         |                 |        |
| Basel University, Switzerland.....                 | 1       | 0               | 1      |
| University of Bologna.....                         | 0       | 1 <sup>7</sup>  | 1      |
| University of Brussels.....                        | 0       | 1 <sup>7</sup>  | 1      |
| University of Geneva, Switzerland .....            | 1       | 0               | 1      |
| University of Graetz, Austria .....                | 1       | 2 <sup>8</sup>  | 3      |
| University of Naples, Italy.....                   | 1       | 1 <sup>7</sup>  | 2      |
|                                                    | 370     | 82              | 452    |

<sup>1</sup> Three, 2d examinations.<sup>2</sup> One, 4th examination.<sup>3</sup> Four, 2d, one, 3d, and one, 5th examinations.<sup>4</sup> Two, 2d examinations.<sup>5</sup> Three, 2d, two 3d, and one, 4th examinations.<sup>6</sup> One, 2d, and one, 3d examinations.<sup>7</sup> 2d examination.<sup>8</sup> One, 2d examination.

## PHILADELPHIA.

## HAHNEMANN MEDICAL COLLEGE AND HOSPITAL.

(SEE VOL. IV, p. 631.)

*Graduates in 1900.*—58, of whom 7 had academic degrees.*Students enrolled 1899-1900.*—

|                      | Number. | Academic degrees. |
|----------------------|---------|-------------------|
| Seniors - - - - -    | 64      | 9                 |
| Juniors - - - - -    | 58      | 8                 |
| Sophomores - - - - - | 70      | 1                 |
| Freshmen - - - - -   | 76      | .                 |
| Total - - - - -      | 268     | 18                |

—53d Annual Announcement, Session of 1900-1901.

## STATE EXAMINATIONS, 1900.

|                           | Passed. | Failed.        | Total. |
|---------------------------|---------|----------------|--------|
| Arizona .....             | 1       | 2              | 3      |
| District of Columbia..... | 1       | 1 <sup>1</sup> | 2      |
| Illinois .....            | 2       | 0              | 2      |
| Massachusetts .....       | 5       | 1 <sup>3</sup> | 6      |
| Minnesota.....            | 2       | 0              | 2      |
| New Jersey.....           | 12      | 3 <sup>3</sup> | 15     |
| New York.....             | 7       | 2 <sup>4</sup> | 9      |
| Pennsylvania .....        | 29      | 4 <sup>5</sup> | 33     |

## JEFFERSON MEDICAL COLLEGE.

(SEE VOL. IV, p. 626.)

*Graduates in 1899.*—85.*Students enrolled 1899-1900.*—

|                      | Number. | Academic degrees. |
|----------------------|---------|-------------------|
| Seniors - - - - -    | 125     | 9                 |
| Juniors - - - - -    | 151     | 9                 |
| Sophomores - - - - - | 168     | 15                |
| Freshmen - - - - -   | 185     | 3                 |
| Specials - - - - -   | 9       | .                 |
| Total - - - - -      | 638     | 36                |

—76th Annual Announcement, Session of 1900-1901.

<sup>1</sup> Class of 1892.<sup>2</sup> Class of 1898.<sup>3</sup> One, 2d examination.<sup>4</sup> One, class of 1898.<sup>5</sup> Two, 2d examinations.

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Alabama .....       | 1       | 0              | 1      |
| Connecticut .....   | 3       | 1              | 4      |
| Delaware .....      | 3       | 0              | 3      |
| Illinois.....       | 2       | 1              | 3      |
| Iowa .....          | 1       | 0              | 1      |
| Maryland .....      | 1       | 1              | 2      |
| Massachusetts ..... | 1       | 0              | 1      |
| Minnesota.....      | 2       | 0              | 2      |
| Montana .....       | 1       | 0              | 1      |
| New Jersey.....     | 10      | 0              | 10     |
| New York.....       | 4       | 0              | 4      |
| North Carolina....  | 2       | 0              | 2      |
| North Dakota.....   | 1       | 0              | 1      |
| Ohio .....          | 1       | 0              | 1      |
| Oregon.....         | 2       | 0              | 2      |
| Pennsylvania .....  | 43      | 6 <sup>1</sup> | 49     |
| Virginia.....       | 3       | 0              | 3      |

## MEDICO-CHIRURGICAL COLLEGE OF PHILADELPHIA.

(SEE VOL. IV, p. 629.)

*Graduates in 1900.—39.**Students enrolled 1899-1900.—*

|                       | Number. | Academic degrees. |
|-----------------------|---------|-------------------|
| First year - - - - -  | 99      | .                 |
| Second year - - - - - | 106     | .                 |
| Third " - - - - -     | 76      | .                 |
| Fourth " - - - - -    | 65      | 1                 |
| Specials - - - - -    | 17      | .                 |
| Total - - - - -       | 363     | 1                 |

## FACULTY.

*Drop :* C. W. Burr, M.D., H. H. Mentzer, Ph.G.*Add :* W. Frank Haehnlen, Ph.D., M.D., *Obstetrics.**—Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                   | Passed. | Failed. | Total. |
|-------------------|---------|---------|--------|
| Connecticut ..... | 1       | 0       | 1      |
| Delaware.....     | 2       | 0       | 2      |
| Idaho .....       | 1       | 0       | 1      |
| Illinois .....    | 2       | 0       | 2      |
| Maine.....        | 1       | 0       | 1      |
| Maryland .....    | 0       | 1       | 1      |

<sup>1</sup> One, 4th examination.

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Massachusetts ..... | 1       | 0              | 1      |
| Minnesota .....     | 2       | 0              | 2      |
| Montana .....       | 0       | 1              | 1      |
| New Jersey.....     | 11      | 3 <sup>1</sup> | 14     |
| New York.....       | 3       | 1 <sup>2</sup> | 4      |
| Pennsylvania .....  | 19      | 8 <sup>3</sup> | 27     |
| Vermont .....       | 1       | 0              | 1      |

UNIVERSITY OF PENNSYLVANIA, MEDICAL DEPARTMENT.

(SEE VOL. IV, p. 624.)

*Entrance Requirements.*—The same as to the Freshman class in the courses leading to the first degree.

*Graduates in 1899.*—211.

*Students enrolled 1899-1900.*—

|                            | Number. | Academic degrees. |
|----------------------------|---------|-------------------|
| Fourth year - - - - -      | 189     | 49                |
| Third " - - - - -          | 164     | 30                |
| Second " - - - - -         | 181     | 47                |
| First " - - - - -          | 141     | 24                |
| Special students - - - - - | 4       | .                 |
| Total - - - - -            | 679     | 150               |

— *Announcement for 135th Annual Session, 1900-1901.*

STATE EXAMINATIONS, 1900.

|                           | Passed. | Failed.        | Total. |
|---------------------------|---------|----------------|--------|
| Alabama .....             | 1       | 0              | 1      |
| Connecticut .....         | 2       | 0              | 2      |
| Delaware .....            | 3       | 0              | 3      |
| District of Columbia..... | 2       | 0              | 2      |
| Idaho .....               | 1       | 0              | 1      |
| Iowa .....                | 3       | 1 <sup>4</sup> | 4      |
| Louisiana .....           | 1       | 0              | 1      |
| Maine.....                | 1       | 0              | 1      |
| Maryland .....            | 2       | 0              | 2      |
| Massachusetts .....       | 5       | 0              | 5      |
| Minnesota.....            | 1       | 0              | 1      |
| Montana .....             | 1       | 1 <sup>5</sup> | 2      |
| New Jersey.....           | 19      | 0              | 19     |
| New York.....             | 11      | 0              | 11     |

<sup>1</sup> One, 2d, and one, 3d examinations.

<sup>2</sup> Class of 1895.

<sup>3</sup> Four, 2d, one, 3d, and one, 5th examinations.

<sup>4</sup> Class of 1877.

<sup>5</sup> Class of 1878—2d examination.

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| North Carolina..... | 3       | 0              | 3      |
| Ohio .....          | 1       | 0              | 1      |
| Pennsylvania .....  | 127     | 6 <sup>1</sup> | 133    |
| Virginia.....       | 2       | 0              | 2      |

#### THE WOMAN'S MEDICAL COLLEGE OF PENNSYLVANIA.

(SEE VOL. IV, p. 628.)

*Graduates in 1900.*—26, of whom 6 had academic degrees.

*Students enrolled 1899-1900.*—159, of whom 16 had academic degrees.

#### FACULTY.

*Drop:* J. B. Roberts, M.D.

*Add:* T. S. K. Morton, M.D., *Principles and Practice of Surgery and Clinical Surgery.*

—*Catalogue and 51st Annual Announcement, Session of 1900-1901.*

#### STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| Connecticut .....   | 1       | 0       | 1      |
| Maine.....          | 2       | 0       | 2      |
| Massachusetts ..... | 4       | 0       | 4      |
| Minnesota.....      | 1       | 0       | 1      |
| New Jersey.....     | 3       | 0       | 3      |
| Pennsylvania. ....  | 18      | 0       | 18     |
| Vermont .....       | 1       | 0       | 1      |
| Virginia.....       | 1       | 0       | 1      |

#### PITTSBURG.

#### WESTERN PENNSYLVANIA MEDICAL COLLEGE (MEDICAL DEPARTMENT OF THE WESTERN UNIVERSITY OF PENNSYLVANIA.)

(SEE VOL. IV, p. 632.)

*Length of Term.*—Increased from seven to eight months.

*Graduates in 1899.*—49.

*Students enrolled 1899-1900.*—

|                |   |   |   |   |   |   |     |
|----------------|---|---|---|---|---|---|-----|
| Post-graduates | - | - | - | - | - | - | 5   |
| Fourth year    | - | - | - | - | - | - | 65  |
| Third year     | - | - | - | - | - | - | 76  |
| Second year    | - | - | - | - | - | - | 64  |
| First year     | - | - | - | - | - | - | 107 |
| Total          | - | - | - | - | - | - | 317 |

#### FACULTY.

*Drop:* N. W. Brown, M.D.; C. S. Shaw, M.D.

*Add:* E. B. Borland, M.D., *Hygiene and Dietetics.* The chair of *Diseases of Children* is vacant.

—*Catalogue, 1899-1900.*

<sup>1</sup> Three, 2d examinations.

## STATE EXAMINATION, 1900.

|                    | Passed. | Failed.         | Total. |
|--------------------|---------|-----------------|--------|
| Pennsylvania ..... | 60      | 14 <sup>1</sup> | 74     |

## RHODE ISLAND.

(SEE VOLS. III, p. 289; IV, 764.)

Diplomas of certain medical schools whose requirements comply in every particular with the standard set by the state board of health, secure their holders a license to practise in Rhode Island; all others must submit to an examination.

*Executive Officer in Charge.*—Dr. Gardner T. Swartz, Secretary, Providence.

## SOUTH CAROLINA.

(SEE VOLS. II, p. 765; IV, 764.)

Graduates in medicine from reputable colleges are competent to appear before the state board of examiners for licensure.

*Executive Officer of the Board.*—Dr. S. C. Baker, Secretary, Sumter.

## EXAMINATIONS, 1900.

| Name of college.                                             | Passed. | Failed.        | Total. |
|--------------------------------------------------------------|---------|----------------|--------|
| <b>GEORGIA.</b>                                              |         |                |        |
| Atlanta College of Physicians and Surgeons .....             | 0       | 1              | 1      |
| Atlanta Medical College.....                                 | 3       | 0              | 3      |
| Southern Medical College .....                               | 1       | 0              | 1      |
| University of Georgia, Medical Department.....               | 5       | 1 <sup>2</sup> | 6      |
| <b>KENTUCKY.</b>                                             |         |                |        |
| Hospital College of Medicine .....                           | 0       | 1 <sup>3</sup> | 1      |
| Louisville National Medical College.....                     | 0       | 1 <sup>4</sup> | 1      |
| <b>MARYLAND.</b>                                             |         |                |        |
| Baltimore University School of Medicine .....                | 2       | 0              | 2      |
| University of Maryland, School of Medicine .....             | 2       | 0              | 2      |
| <b>MISSOURI.</b>                                             |         |                |        |
| University Medical College .....                             | 1       | 0              | 1      |
| <b>NEW YORK.</b>                                             |         |                |        |
| University of the City of New York, Medical Department ..... | 1       | 0              | 1      |
| Bellevue Hospital Medical College .....                      | 1       | 0              | 1      |

<sup>1</sup> Three, 2d, two, 3d, and one, 4th examinations.

<sup>2</sup> Class of 1890.

<sup>3</sup> Class of 1898.

<sup>4</sup> Class of 1894.

| Name of college.                                                | Passed.  | Failed.        | Total.   |
|-----------------------------------------------------------------|----------|----------------|----------|
| <b>NORTH CAROLINA.</b>                                          |          |                |          |
| Leonard Medical School, Shaw University.....                    | 1        | 4              | 5        |
| <b>SOUTH CAROLINA.</b>                                          |          |                |          |
| Medical College of the State of South Carolina.....             | 35       | 6              | 41       |
| <b>TENNESSEE.</b>                                               |          |                |          |
| Chattanooga Medical College.....                                | 1        | 0              | 1        |
| Medical Department of the University of Nashville.              | 2        | 0              | 2        |
| Meharry Medical Department of Central Tennessee<br>College..... | 0        | 2 <sup>1</sup> | 2        |
| University of the South, Medical Department.....                | 5        | 1              | 6        |
| <b>VIRGINIA.</b>                                                |          |                |          |
| Medical College of Virginia.....                                | 1        | 0              | 1        |
|                                                                 | <hr/> 61 | <hr/> 17       | <hr/> 78 |

## CHARLESTON.

### MEDICAL COLLEGE OF THE STATE OF SOUTH CAROLINA.

(SEE VOL. IV, p. 633.)

*Fees.*—Fourth year, tuition, \$75.00.

*Graduates in 1900.*—43, of whom one had an academic degree.

*Students enrolled 1899-1900.*—120, of whom one had an academic degree.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| Maryland.....       | 1       | 0       | 1      |
| North Carolina..... | 3       | 1       | 4      |
| South Carolina..... | 35      | 6       | 41     |

## SOUTH DAKOTA.

(SEE VOL. II, p. 766.)

Any one possessing a diploma from a lawful medical college whose course extends over three years is entitled to a license to practise from the state board of health.

*Executive Officer of the Board.*—Dr. A. E. Clough, Secretary, Madison.

## TENNESSEE.

(SEE VOL. IV, p. 767.)

Quite recently Tennessee has changed its law again. The law during the past year permitted graduates from Tennessee medical colleges to obtain a license upon presentation of their

<sup>1</sup> One each, classes 1894, 1899.



diplomas. A diploma was presented from the "*Chattanooga Gentitium Collegium Medicina*," on which a license was demanded but refused. This, in connection with other facts, convinced the legislature of the necessity of state control. Hereafter all who expect to practise in Tennessee must stand a state examination, excepting those matriculates in Tennessee colleges who graduate in or before June, 1902.

*Executive Officer of the Board.*—Dr. T. J. Happel, Secretary, Trenton.

## CHATTANOOGA.

### CHATTANOOGA MEDICAL COLLEGE.

(SEE VOL. IV, p. 634.)

*Graduates in 1900.*—58.

*Students enrolled 1899-1900.*—207.

#### FACULTY.

*Drop:* J. S. Shoff, M.D., and add his chair to that assigned to Cooper Holtzclaw, M.D., H. B. Wilson, M.D., R. T. Isbester, M.D.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| Alabama .....       | 9       | 1       | 10     |
| Maine.....          | 1       | 0       | 1      |
| North Carolina..... | 0       | 2       | 2      |
| South Carolina..... | 1       | 0       | 1      |

## KNOXVILLE.

### MEDICAL DEPARTMENT OF KNOXVILLE COLLEGE.<sup>2</sup>

*Entrance Requirements.*—"Applicants must be at least seventeen years of age, of good moral character, \* \* and meet all of the requirements of the rules laid down by the Association of American Medical Colleges."<sup>3</sup>

*Length of Course.*—Four years, of six months each.

#### *Fees.*—

|                                                        |   |   |   |   |   |          |
|--------------------------------------------------------|---|---|---|---|---|----------|
| Tuition, per session                                   | - | - | - | - | - | \$ 30.00 |
| Tuition for entire course                              | - | - | - | - | - | 120.00   |
| Graduating fee, with slight additional laboratory fees |   |   |   |   |   | 10.00    |

<sup>1</sup> No account of this institution is to be found in this report.

<sup>2</sup> No catalogue was received from this college last year.

<sup>3</sup> See Vol. IV, p. 455.

*Graduates in 1900.*—Not given in the announcement.

*Students enrolled 1899-1900.*—

|            |   |   |   |   |   |   |    |
|------------|---|---|---|---|---|---|----|
| Seniors    | - | - | - | - | - | - | 2  |
| Sophomores | - | - | - | - | - | - | 5  |
| Freshmen   | - | - | - | - | - | - | 4  |
| Total      | - | - | - | - | - | - | 11 |

#### FACULTY.

Rev. R. W. McGranahan.

*President.*

E. L. Randall, M.D., Dean.

*Theory and Practice of Medicine.*

A. G. Edwards, M.D., Secretary.

*Anatomy and Histology.*

W. H. Moore, M.D.

*Obstetrics and Gynecology.*

John Clear, M.D., Registrar.

*Materia Medica, Therapeutics and Pediatrics.*

W. W. Derrick, M.D.

*Chemistry and Physical Diagnosis.*

J. H. Morton, M.D.

*Physiology and Surgery.*

J. C. Ford, Attorney.

*Medical Jurisprudence.*

—*Announcement for Session of 1900-1901.*

### STATE EXAMINATIONS, 1900.

(None reported.)

#### TENNESSEE MEDICAL COLLEGE.

(SEE VOL. IV, p. 636.)

### STATE EXAMINATIONS, 1900.

|                      | Passed. | Failed. | Total. |
|----------------------|---------|---------|--------|
| North Carolina ..... | 0       | 3       | 3      |
| Virginia.....        | 1       | 0       | 1      |

### MEMPHIS.

#### MEMPHIS HOSPITAL MEDICAL COLLEGE.

(SEE VOL. IV, p. 636.)

*Graduates in 1899-1900.*—143.

*Students enrolled 1899-1900.*—559.

—*Announcement for Session of 1900-1901.*

### STATE EXAMINATIONS, 1900.

|                 | Passed. | Failed. | Total. |
|-----------------|---------|---------|--------|
| Alabama .....   | 7       | 0       | 7      |
| Louisiana ..... | 12      | 1       | 13     |
| New York.....   | 1       | 0       | 1      |

### NASHVILLE.

#### MEDICAL DEPARTMENT OF THE UNIVERSITY OF NASHVILLE.

(SEE VOL. IV, p. 637.)

*Graduates in 1900.*—83.

*Students enrolled 1899-1900.*—198.

## FACULTY.

*Drop*: A. Bennett Cooke, A.M., M.D.

—*Annual Announcement, 50th Session, 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                      | Passed. | Failed.        | Total. |
|----------------------|---------|----------------|--------|
| Alabama .....        | 5       | 0              | 5      |
| Louisiana .....      | 1       | 0              | 1      |
| Minnesota .....      | 0       | 1 <sup>1</sup> | 1      |
| North Carolina ..... | 1       | 1              | 2      |
| South Carolina ..... | 2       | 0              | 2      |

## MEHARRY MEDICAL DEPARTMENT OF CENTRAL TENNESSEE COLLEGE.

(SEE VOL. IV, p. 641.)

*Entrance Requirements.*—Those of the Association of American Medical Colleges.<sup>2</sup>

*Graduates in 1900.*—34, of whom 4 had academic degrees.

*Students enrolled 1899-1900.*—

|                           | Number. | Academic degrees. |
|---------------------------|---------|-------------------|
| Senior class - - - - -    | 36      | 4                 |
| Junior " - - - - -        | 40      | 4                 |
| Sophomore class - - - - - | 52      | 1                 |
| Freshman " - - - - -      | 47      | 13                |
| Total - - - - -           | 175     | 22                |

## FACULTY.

*Drop*: R. O. Tucker, M.D.

*Add*: D. B. Neill, M.D., *Theory and Practice of Medicine*; W. H. Baskette, M.D., *Diseases of Children*.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                      | Passed. | Failed.        | Total. |
|----------------------|---------|----------------|--------|
| Alabama .....        | 4       | 3              | 7      |
| Minnesota .....      | 1       | 1 <sup>3</sup> | 2      |
| North Carolina ..... | 2       | 0              | 2      |
| South Carolina ..... | 0       | 2 <sup>4</sup> | 2      |

## UNIVERSITY OF TENNESSEE, MEDICAL DEPARTMENT.

(SEE VOL. IV, p. 639.)

*Graduates in 1899-1900.*—78.

*Students enrolled 1899-1900.*—

<sup>1</sup> Class of 1896.

<sup>2</sup> See Vol. IV, p. 455.

<sup>3</sup> Class of 1894.

<sup>4</sup> One each, classes 1894, 1899.

|               |   |   |   |   |   |   |   |     |
|---------------|---|---|---|---|---|---|---|-----|
| First course  | - | - | - | - | - | - | - | 58  |
| Second course | - | - | - | - | - | - | - | 74  |
| Third course  | - | - | - | - | - | - | - | 94  |
| Total         | - | - | - | - | - | - | - | 226 |

## FACULTY.

*Drop:* J. B. Keeble, LL.B.; H. P. Cartwright, M.D.

*Add:* R. O. Tucker, M.D., *Obstetrics and Clinical Midwifery*; J. A. Gaines, M.D., *Nervous Diseases*; J. H. DeWitt, LL.B., *Medical Jurisprudence*.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| Alabama .....       | 1       | 0       | 1      |
| Idaho .....         | 1       | 0       | 1      |
| New York .....      | 1       | 0       | 1      |
| North Carolina..... | 3       | 0       | 3      |
| Virginia.....       | 1       | 0       | 1      |

## VANDERBILT UNIVERSITY, MEDICAL DEPARTMENT.

(SEE VOL. IV, p. 638.)

*Graduates in 1900.*—94.

*Students enrolled 1899-1900.*—

|                |   |   |   |   |   |   |   |     |
|----------------|---|---|---|---|---|---|---|-----|
| Post-graduates | - | - | - | - | - | - | - | 16  |
| Specials       | - | - | - | - | - | - | - | 30  |
| Senior class   | - | - | - | - | - | - | - | 99  |
| Middle "       | - | - | - | - | - | - | - | 81  |
| Second year    | - | - | - | - | - | - | - | 15  |
| First "        | - | - | - | - | - | - | - | 49  |
| Total          | - | - | - | - | - | - | - | 290 |

## FACULTY.

*Drop:* Ross Dunn, M.D., E. B. Sangree, A.M., M.D., J. R. Buist, A.B., M.D.

*Add:* W. H. Witt, A.B., M.D., *Materia Medica and Therapeutics*; Dr. Richard Douglas has had *Obstetrics* added to his chair, and Dr. G. H. Price is now Secretary.

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                 | Passed. | Failed.        | Total. |
|-----------------|---------|----------------|--------|
| Alabama .....   | 13      | 3 <sup>1</sup> | 16     |
| Louisiana ..... | 6       | 0              | 6      |
| Minnesota.....  | 1       | 0              | 1      |
| New Jersey..... | 0       | 2 <sup>2</sup> | 2      |

<sup>1</sup> One, class of 1876; one, class of 1900; appeal from Jefferson County Board.

<sup>2</sup> One, 3d, and one, 4th examinations.

|               | Passed. | Failed. | Total. |
|---------------|---------|---------|--------|
| Oregon.....   | 2       | 0       | 2      |
| Virginia..... | 2       | 0       | 2      |

## SEWANEE.

THE UNIVERSITY OF THE SOUTH, MEDICAL DEPARTMENT.

(SEE VOL. IV, p. 642.)

*Graduates in 1900.*—80, of whom 8 had academic degrees.

*Students enrolled 1899-1900.*—161, of whom 9 had academic degrees.

— *Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                      | Passed. | Failed.        | Total. |
|----------------------|---------|----------------|--------|
| Alabama .....        | 9       | 0              | 9      |
| Georgia .....        | 0       | 1              | 1      |
| Louisiana .....      | 2       | 0              | 2      |
| Massachusetts .....  | 0       | 3 <sup>1</sup> | 3      |
| Minnesota.....       | 0       | 1 <sup>2</sup> | 1      |
| New Jersey.....      | 1       | 0              | 1      |
| New York.....        | 4       | 0              | 4      |
| Pennsylvania.....    | 1       | 3 <sup>3</sup> | 4      |
| South Carolina ..... | 5       | 1              | 6      |
| Virginia .....       | 1       | 2              | 3      |

## TEXAS.

On February 22, 1901, the governor signed the new medical practice act, of which the following is a synopsis.

SECTION 1 repeals sections of previous act.

SECTION 2 provides for three boards of medical examiners, each board to consist of nine members to serve for two years.

SECTION 3 defines the qualifications of the members of the boards who are to be appointed by the governor from nominations made by the Texas State Medical Association, the Eclectic Medical Society of the State of Texas, and the Homeopathic Medical Society of Texas.

SECTION 4 relates to the organization of the boards.

SECTION 5 defines the duty of the boards to examine all persons making application to them who shall desire to commence the practice of medicine, surgery, midwifery in the state who shall not by the provisions of the act be exempt from such examination. Applicants passing the examination shall receive a certificate conferring the right to practise.

<sup>1</sup> One, class of 1899.

<sup>2</sup> Class of 1898.

<sup>3</sup> One, 2d, and one, 3d examinations.

SECTION 6. If the applicant fail, a second examination cannot be taken within a year. Nor can a person rejected by one board come up for an examination before either of the other boards. An applicant unavoidably prevented from appearing before the board at a regular committee may be privileged to be examined by a committee of three for a temporary license which becomes void after the next meeting of the board. "No applicant shall be admitted to examination who cannot submit satisfactory evidence that he or she is more than 21 years of age and of good moral character. Applications must be made in writing and accompanied by the fee, \$15.00."

SECTION 7 requires the boards to keep records of their proceedings, showing name, age, place, and duration of residence of each applicant, the time spent in medical study in and out of medical schools which have granted said applicant any degree or certificate of attendance upon lectures in medicine; and whether the applicant was accepted or rejected.

SECTION 8 defines who may practise in Texas. The two first classes apply to those who were practising in Texas when the law went into effect. 3. Those who receive certificates from the board of examiners. 4. Those who have been licensed by other state boards of examiners whose standard is equal to those of Texas, can procure a license to practise in Texas upon submitting evidence of this and paying the fee of \$15.00. 5. Relates to midwives.

SECTION 9 defines practice of medicine, including the street vending of medicines if not manufactured in Texas, permits the surgeons of the army, navy, and marine hospital service to perform their duties and consultations of non-resident physicians with the profession of Texas.

SECTION 10 prescribes the subjects for examination: anatomy, physiology, chemistry, materia medica, therapeutics, histology, pathology, practice of medicine, surgery, including diseases of the eye, ear, nose, and throat, obstetrics, gynecology, hygiene, and medical jurisprudence.

SECTION 11 relates to the compensation and expenses of the boards.

SECTION 12 requires the recording of the license by the clerk of the district court, who shall receive a fee of fifty cents.

SECTION 13 is the penalty section. A fine of not less than \$50 nor more than \$500 for each offense or by fine and imprisonment not exceeding six months; and inability to collect fees by legal process, "provided, that the provisions of this act do not apply to persons treating disease who do not prescribe or give drugs or medicine."

SECTION 14 again repeals the sections containing the former law.

SECTION 15 an emergency section.

The appointment of the members of the boards is to be made by the terms of the statute on May 10th and cannot be included here. The method to be followed will probably coincide with the procedure usually adopted.

*Executive Officers of the Boards.*—These can not be given here but any inquiry (enclosing stamped envelope for reply) addressed

to Dr. H. A. West, the Secretary of the Texas State Medical Association, will give the necessary information.

## DALLAS.

### MEDICAL DEPARTMENT, UNIVERSITY OF DALLAS.

This is a new college. As no announcement or circular has been received in reply to either letter of request, no additional information can be given.

## FORT WORTH.

### MEDICAL DEPARTMENT OF FORT WORTH UNIVERSITY.

(SEE VOL. IV, p. 643.)

*Graduates in 1900.*—24.

*Students enrolled 1899-1900.*—141

#### FACULTY.

*Add: W. A. Adams, A.M., M.D. LL.D. (Emeritus), Principles and Practice of Medicine.*

—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

(None reported.)

## GALVESTON.

### DEPARTMENT OF MEDICINE, UNIVERSITY OF TEXAS.

(SEE VOL. IV, p. 643.)

*Length of Course.*—Four years, of eight months each.

*Graduates in 1900.*—45.

*Students enrolled 1899-1900.*—

| Three years' course.— |   |   |   |   | Number. | Academic degrees. |
|-----------------------|---|---|---|---|---------|-------------------|
| Third year            | - | - | - | - | - 11    | .                 |
| Second "              | - | - | - | - | - 1     | .                 |
| First "               | - | - | - | - | - 3     | .                 |
| Four years' course.—  |   |   |   |   |         |                   |
| Fourth year           | - | - | - | - | - 4     | .                 |
| Third "               | - | - | - | - | - 9     | .                 |
| Second "              | - | - | - | - | - 33    | 1                 |
| First "               | - | - | - | - | - 94    | 2                 |
| Special               | - | - | - | - | - 1     | .                 |
| Total                 | - | - | - | - | - 156   | 3                 |

## FACULTY.

W. L. Prather, in place of G. T. Winston, A.M., LL.D., *President*.

*Drop*: G. H. Lee, B.P., M.D.

—*Catalogue, 1899-1900.*

## STATE EXAMINATION, 1900.

|                 | Passed. | Failed. | Total |
|-----------------|---------|---------|-------|
| Louisiana ..... | 1       | 0       | 1     |

## UTAH.

(**SEE VOL. II, p. 770.**)

A license to practise is issued to any one who is graduated from a medical college recognized as in good standing by the board, after passing an examination.

*Executive Officer of the Board.*—Eli A. Folland, Clerk, Room 2, City and County Building, Salt Lake City.

## EXAMINATIONS, 1900.

(No report received from the board.)

## VERMONT.

(**SEE VOL. III, p. 637.**)

The censors of the three state medical societies are boards of examiners who fix their own standard provided the applicant is a graduate of a medical school.

*Executive Officer of the Board.*—Dr. H. C. Tinkham, Burlington, representing the Vermont Medical Society.<sup>1</sup>

## EXAMINATIONS, 1900.

| Name of college.                                | Passed. | Failed.        | Total. |
|-------------------------------------------------|---------|----------------|--------|
| <b>MARYLAND.</b>                                |         |                |        |
| Baltimore Medical College.....                  | 1       | 0              | 1      |
| <b>MASSACHUSETTS.</b>                           |         |                |        |
| Medical School of Harvard University.....       | 1       | 0              | 1      |
| Tufts College Medical School.....               | 1       | 0              | 1      |
| <b>NEW HAMPSHIRE.</b>                           |         |                |        |
| Dartmouth College, Medical School.....          | 1       | 1              | 2      |
| <b>PENNSYLVANIA.</b>                            |         |                |        |
| Woman's Medical College of Pennsylvania .....   | 1       | 0              | 1      |
| Medico-Chirurgical College of Philadelphia..... | 1       | 0              | 1      |
| <b>VERMONT.</b>                                 |         |                |        |
| Medical Department, University of Vermont ..... | 16      | 5 <sup>2</sup> | 21     |
| <b>CANADA.</b>                                  |         |                |        |
| McGill University, Medical Department.....      | 1       | 0              | 1      |
| College not given .....                         | 1       | 0              | 1      |
|                                                 | 24      | 6              | 30     |

<sup>1</sup> No information could be obtained from the censors representing the other societies.

<sup>2</sup> One, class of 1899; two failed in 1st examination; passed in 2d.



## BURLINGTON.

MEDICAL DEPARTMENT, UNIVERSITY OF VERMONT.

(SEE VOL. IV, p. 645.)

*Graduates in 1900.*—40, of whom 8 had academic degrees.*Students enrolled 1899-1900.*—

|                                       | Number. | Academic<br>degrees. |
|---------------------------------------|---------|----------------------|
| Third year of three-year course - - - | 50      | 7                    |
| Third " four-year " - - -             | 11      | 0                    |
| Second " " " - - -                    | 41      | 2                    |
| First " " " - - -                     | 43      | .                    |
|                                       | <hr/>   | <hr/>                |
| Total - - - - -                       | 145     | 9                    |

## FACULTY.

*Drop:* A. P. Grinell, M.D., A. M. Phelps, M.D.*Add:* A. O. J. Kelly, A.M., M.D., *Theory and Practice of Medicine.*—*Announcement for Session of 1901.*

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed.        | Total. |
|---------------------|---------|----------------|--------|
| Connecticut .....   | 4       | 0              | 4      |
| Maine.....          | 3       | 0              | 3      |
| Massachusetts ..... | 12      | 3 <sup>1</sup> | 15     |
| Minnesota.....      | 0       | 1 <sup>2</sup> | 1      |
| Montana .....       | 0       | 1 <sup>3</sup> | 1      |
| New Hampshire ..... | 3       | 1              | 4      |
| New York.....       | 9       | 0              | 9      |
| Pennsylvania .....  | 1       | 1              | 2      |
| Vermont .....       | 16      | 5 <sup>4</sup> | 21     |

## VIRGINIA.

(SEE VOL. IV, p. 770.)

By the new law medical students may be examined on the more theoretic studies during their medical course, but only graduates in medicine may come up for a license examination. Physicians licensed by the board of another state having essentially the same standard, will be licensed by the Virginia board after such an examination as will convince the board of the applicant's ability to practise medicine.

<sup>1</sup> One each, classes 1893, 1895, 1899.<sup>2</sup> Class of 1899.<sup>3</sup> Class of 1882.<sup>4</sup> One, class of 1899; two failed in 1st examination; passed in 2d.

*Executive Officer of the Board.*—Dr. R. S. Martin, Secretary, Stuart.

### EXAMINATIONS, 1900.

| Name of college.                                            | Passed.    | Failed.   | Total.     |
|-------------------------------------------------------------|------------|-----------|------------|
| <b>DISTRICT OF COLUMBIA.</b>                                |            |           |            |
| Columbian University, Medical School .....                  | 2          | 0         | 2          |
| Georgetown University, School of Medicine.....              | 1          | 1         | 2          |
| Howard University, Medical Department .....                 | 1          | 0         | 1          |
| <b>ILLINOIS.</b>                                            |            |           |            |
| Chicago Homeopathic Medical College .....                   | 1          | 0         | 1          |
| <b>KENTUCKY.</b>                                            |            |           |            |
| Hospital College of Medicine .....                          | 3          | 0         | 3          |
| Kentucky School of Medicine .....                           | 1          | 0         | 1          |
| <b>MARYLAND.</b>                                            |            |           |            |
| Baltimore Medical College.....                              | 1          | 0         | 1          |
| Baltimore University School of Medicine .....               | 1          | 1         | 2          |
| College of Physicians and Surgeons.....                     | 0          | 1         | 1          |
| Johns Hopkins University, Medical Department....            | 0          | 1         | 1          |
| University of Maryland, School of Medicine .....            | 8          | 1         | 9          |
| Maryland Medical College.....                               | 0          | 1         | 1          |
| Southern Homeopathic Medical College.....                   | 1          | 1         | 2          |
| <b>MISSOURI.</b>                                            |            |           |            |
| Washington University, Medical Department .....             | 1          | 0         | 1          |
| <b>NEW YORK.</b>                                            |            |           |            |
| College of Physicians and Surgeons (Columbia) ...           | 1          | 0         | 1          |
| Cornell University Medical College .....                    | 1          | 0         | 1          |
| University of the City of New York, Medical Department..... | 1          | 0         | 1          |
| <b>NORTH CAROLINA.</b>                                      |            |           |            |
| Leonard Medical School, Shaw University.....                | 4          | 3         | 7          |
| <b>PENNSYLVANIA.</b>                                        |            |           |            |
| University of Pennsylvania, Medical Department... ..        | 2          | 0         | 2          |
| Jefferson Medical College.....                              | 3          | 0         | 3          |
| Woman's Medical College of Pennsylvania.....                | 1          | 0         | 1          |
| <b>TENNESSEE.</b>                                           |            |           |            |
| Tennessee Medical College.....                              | 1          | 0         | 1          |
| Vanderbilt University, Medical Department.....              | 2          | 0         | 2          |
| University of Tennessee, Medical Department.....            | 1          | 0         | 1          |
| University of the South, Medical Department.....            | 1          | 2         | 3          |
| <b>VIRGINIA.</b>                                            |            |           |            |
| Medical Department, University of Virginia.....             | 24         | 4         | 28         |
| Medical College of Virginia.....                            | 28         | 4         | 32         |
| University College of Medicine.....                         | 34         | 4         | 38         |
| College unknown.....                                        | 1          | 0         | 1          |
| Non-graduates.....                                          | 4          | 12        | 16         |
|                                                             | <u>130</u> | <u>36</u> | <u>166</u> |

## CHARLOTTESVILLE.

MEDICAL DEPARTMENT, UNIVERSITY OF VIRGINIA.

(SEE VOL. IV, p. 646.)

*Graduates in 1899.*—37.*Students enrolled 1899-1900.*—187, of whom 20 had academic degrees.—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                            | Passed. | Failed.        | Total. |
|----------------------------|---------|----------------|--------|
| Alabama .....              | 4       | 1 <sup>1</sup> | 5      |
| Connecticut .....          | 1       | 0              | 1      |
| Delaware.....              | 1       | 0              | 1      |
| District of Columbia ..... | 3       | 0              | 3      |
| Illinois.....              | 2       | 0              | 2      |
| New York.....              | 1       | 0              | 1      |
| Pennsylvania .....         | 1       | 0              | 1      |
| Virginia.....              | 24      | 4              | 28     |

## RICHMOND.

MEDICAL COLLEGE OF VIRGINIA.

*Entrance Requirements.*—The applicant for matriculation must present evidence that he is a graduate of a college or high school, or of some other literary institution of approved standing; or else he must present properly signed certificates as to his character, and as evidence that his education is equivalent to that which is required of an applicant for a first-grade teacher's certificate.

*Length of Course.*—Four years' graded course, of seven months each.

*Fees:*—

|                                    |   |   |   |   |         |
|------------------------------------|---|---|---|---|---------|
| Medical tuition, per session       | - | - | - | - | \$60.00 |
| Examination fee for medical degree | - | - | - | - | 30.00   |

*Graduates in 1900.*—40.*Students enrolled 1899-1900.*—243.

## FACULTY.

Christopher Tompkins, M.D., Dean. M. L. James, M.D.

*(Emeritus) Obstetrics.**(Emeritus) Practice of Medicine.*

J. S. Wellford, M.D.

J. W. Long, M.D.

*(Emeritus) Diseases of Women and Children.*      *(Emeritus) Diseases of Women and Children.*

<sup>1</sup> Class of 1896.

- J. N. Upshur, M.D.  
*(Emeritus) Practice of Medicine.*
- William H. Taylor, M.D.  
*Chemistry, Toxicology, and Medical Jurisprudence.*
- H. H. Levy, M.D.  
*Practice of Medicine.*
- Geo. Ben. Johnston, M.D.  
*Gynecology and Abdominal Surgery.*
- L. C. Boeher, M.D.  
*Surgery.*
- J. P. Massie, M.D.  
*Obstetrics and Diseases of Puerperal State; and Lecturer on Nervous Diseases.*
- C. A. Blanton, M.D.  
*Diseases of Children.*
- William P. Matthews, M.D.  
*General and Special Anatomy; Clinical Lecturer on Orthopedic Surgery.*
- R. F. Williams, M.D.  
*Materia Medica and Therapeutics, Clinical Lecturer on Practice of Medicine.*
- J. P. Davidson, M.D.  
*Diseases of Eye, Ear and Throat.*
- Charles M. Hazen, M.D.  
*Physiology, Lecturer on Hygiene.*
- E. G. Williams, M.D.  
*Histology, Pathology and Bacteriology.*

## LECTURERS.

- J. M. Whitfield, M.D.  
*Organic Chemistry and Instructor Medical Jurisprudence.*
- D. A. Kuyk, M.D.  
*Laryngology and Instructor in Diseases of Eye, Ear and Throat.*
- F. H. Beadles, M.D.  
*Diseases of the Skin.*
- D. M. Mann, M.D.  
*Minor Surgery.*

## DEMONSTRATORS.

- William A. Lee, M.D.  
*Obstetrics.*
- C. M. Miller, M.D.  
*Anatomy, and Curator of the Museum.*
- B. L. Taliaferro, M.D.  
*Normal Histology.*
- B. M. Randolph, M.D.  
*Pathology and Bacteriology.*
- J. R. Williams, M.D.  
*Operative Surgery.*
- Greer Baughman, M.D.  
*Physiology.*

## INSTRUCTORS.

- Chas. R. Robins, M.D.  
*Gynecology, Abdominal Surgery.*
- Manfred Call, M.D.  
*Practice of Medicine.*
- William J. West, M.D.  
*Diseases of the Nervous System and of Orthopedic Surgery.*
- D. J. Coleman, M.D.  
*Obstetrics and Diseases of Puerperal State.*
- A. B. Greiner, M.D.  
*Materia Medica and Therapeutics.*
- Fulmer Bright, M.D.  
*Anatomy.*

—Announcement for Session of 1900-1901—

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| New York.....       | 1       | 0       | 1      |
| North Carolina..... | 3       | 1       | 4      |
| Pennsylvania.....   | 2       | 0       | 2      |
| South Carolina..... | 1       | 0       | 1      |
| Virginia.....       | 28      | 4       | 32     |

## UNIVERSITY COLLEGE OF MEDICINE.

(SEE VOL. IV, p. 648.)

*Graduates in 1899-1900.*—61.*Students enrolled 1899-1900.*—241.—*Announcement for Session of 1900-1901.*

## STATE EXAMINATIONS, 1900.

|                     | Passed. | Failed. | Total. |
|---------------------|---------|---------|--------|
| Massachusetts ..... | 1       | 0       | 1      |
| Minnesota.....      | 1       | 0       | 1      |
| New Jersey .....    | 1       | 0       | 1      |
| North Carolina..... | 10      | 2       | 12     |
| Virginia.....       | 34      | 4       | 38     |

## WASHINGTON.

(SEE VOL. II, p. 774.)

Any one who can pass the examination of the state board of medical examiners is entitled to a license to practise.

*Executive Officer of the Board.*—Dr. W. G. Tucker, Secretary, Port Townsend.

## EXAMINATIONS, 1900.

(No report received from the board.)

## WEST VIRGINIA.

(SEE VOL. II, p. 775.)

The applicant must have a high-school education and be able to pass an examination upon the usual branches included in a medical course before the state board of health.

*Executive Officer in Charge.*—Dr. A. R. Barbee, Secretary, Point Pleasant.

## EXAMINATIONS, 1900.

(No report received from the board.)

## WISCONSIN.

(SEE VOL. III, p. 293.)

A new law has passed the Wisconsin legislature, requiring the passing an examination before receiving a license to practise.

*Executive Officer of the Board.*—Dr. H. M. Ludwig, Secretary, Richland Center.

## ABSTRACT OF THE NEW WISCONSIN LAW.

SECTION 1 provides that all persons commencing the practice of medicine or surgery shall submit to an examination. The requirements necessary to take the examination are: 1. A diploma from a reputable medical college after at least four courses of not less than six months each. 2. After the year 1901, in addition a preliminary education equivalent to that necessary for entry to the Junior class of an accredited high school; and the length of the course in the medical school must be seven months. *Provided*, students now matriculated in the Wisconsin medical schools may secure the right to practise upon presentation of their diplomas. The examination in therapeutics and practice of medicine is to be selected by the candidate. The proceedings of the board are open to public inspection. A license is issued so those who pass the examination.

An eighth member shall be appointed to the board of examiners, to be selected from five names to be furnished by the Wisconsin State Osteopathic Association, and the board shall grant license to practise osteopathy to those who may pass the regular examination in anatomy, histology, physiology, obstetrics, gynecology, pathology, urinalysis, toxicology, hygiene and dietetics, diagnosis, theory and practice of osteopathy, after having presented to the board a diploma from a college of osteopathy, giving four courses, of five months each. Osteopaths so licensed have "the same rights and privileges, and be subject to the same statutes and regulations as other physicians, but shall not have the right to give or prescribe drugs or to perform surgical operations." All osteopathic schools recognized by the board after September, 1903, must maintain the same standard as to elementary education and time of study before graduation as is required of medical colleges by this act. A graduate of an osteopathic college may take a full examination before the board and obtain a full license should he pass.

The fee for the examination shall not exceed ten dollars, with five dollars additional for the certificate if issued.

A person convicted of crime in the course of his professional conduct, may have his license revoked by the court.

The license is to be recorded in the office of the county clerk, for which he shall receive a fee of one dollar; and, should a person remove from one county to another, the license must be again recorded. Unless the license is recorded, its possessor can not exercise any of the rights or privileges conferred thereby.

The board has the discretion to accept the license issued by a board of examiners of another state in lieu of an examination.

SECTION 2 provides for the custody and disposition of the monies received, the salaries of the examiners, etc.

SECTION 3 provides the law to go into effect from and after its passage and publication. It was approved May 6 and published May 8, 1901.

## MILWAUKEE.

## MILWAUKEE MEDICAL COLLEGE

(SEE VOL. IV, p. 650.)

*Entrance Requirements.*—Add elementary physics.*Length of Course.*—Four years, of seven and one-half months each.*Graduates in 1900.*—32, of whom one had an academic degree.*Students enrolled 1899-1900.*—155.

## FACULTY.

*Drop:* B. A. Brown, Sc.D., M.D., C.M., E. W. Bartlett, M.D., S. S. Stack, M.D., D. W. Harrington, A.M., M.D., John Madden, M.D., A. S. Mitchell, Ph.C.*Add:* R. E. W. Sommer, Ph.G., *Chemistry*; H. V. Wurdemann, M.D., *Ophthalmology and Otology*.

—7th Annual Announcement, Session of 1900-1901.

## STATE EXAMINATIONS, 1900.

|                   | Passed. | Failed.        | Total. |
|-------------------|---------|----------------|--------|
| Illinois.....     | 1       | 0              | 1      |
| Minnesota.....    | 0       | 1 <sup>1</sup> | 1      |
| North Dakota..... | 2       | 1 <sup>2</sup> | 3      |

## WISCONSIN COLLEGE OF PHYSICIANS AND SURGEONS.

(SEE VOL. IV, p. 649.)

*Graduates in 1900.*—7.*Students enrolled 1899-1900.*—

|                            | Number. | Academic degrees. |
|----------------------------|---------|-------------------|
| Senior class - - - - -     | 9       | 1                 |
| Junior class - - - - -     | 17      | .                 |
| Sophomore class - - - - -  | 30      | .                 |
| Freshman class - - - - -   | 38      | .                 |
| Special students - - - - - | 12      | 2                 |
| Total - - - - -            | 106     | 3                 |

*Drop:* J. S. McNeel, M.D.*Add:* John A. McLeod, M.D., *General Therapeutics*; John M. Beffel, M.S., M.D., *Pathology*.

—Circular of Information for Session of 1900-1901.

## STATE EXAMINATION, 1900.

|               | Passed. | Failed.        | Total. |
|---------------|---------|----------------|--------|
| Illinois..... | 1       | 1 <sup>2</sup> | 2      |

<sup>1</sup> Class of 1895.<sup>2</sup> Class of 1896.<sup>3</sup> Class of 1896, two examinations.

## WYOMING.

(SEE VOL. IV, p. 775.)

Graduates of medical schools approved by the board are entitled to a license. All others must pass an examination to be licensed.

*Executive Officer of the Board.*—Dr. G. P. Johnston, Secretary, Cheyenne.

## RECAPITULATION.

|                            | Passed. | Failed.          | Total. |
|----------------------------|---------|------------------|--------|
| Alabama .....              | 112     | 18               | 130    |
| Arizona .....              | 20      | 3                | 23     |
| Connecticut .....          | 56      | 23 <sup>1</sup>  | 79     |
| Delaware .....             | 15      | 1                | 16     |
| District of Columbia ..... | 43      | 16               | 59     |
| Florida .....              | ..      | ..               | ..     |
| Georgia .....              | 24      | 0                | 24     |
| Idaho .....                | 16      | 6                | 22     |
| Illinois .....             | 358     | 7                | 365    |
| Iowa .....                 | 166     | 19               | 185    |
| Louisiana .....            | 98      | 10               | 108    |
| Maine .....                | 76      | 5                | 81     |
| Maryland .....             | 99      | 20               | 119    |
| Massachusetts .....        | 231     | 55               | 286    |
| Minnesota .....            | 142     | 40               | 182    |
| Montana .....              | 24      | 13               | 37     |
| New Hampshire .....        | 36      | 2                | 38     |
| New Jersey .....           | 91      | 21               | 112    |
| New York .....             | 648     | 63               | 711    |
| North Carolina .....       | 57      | 22               | 79     |
| North Dakota .....         | 40      | 7                | 47     |
| Ohio .....                 | 13      | 4                | 17     |
| Oregon .....               | 50      | 8                | 58     |
| Pennsylvania .....         | 370     | 82               | 452    |
| South Carolina .....       | 61      | 17               | 78     |
| Utah .....                 | ..      | ..               | ..     |
| Vermont .....              | 24      | 6                | 30     |
| Virginia .....             | 130     | 36               | 166    |
| Washington .....           | ..      | ..               | ..     |
| West Virginia .....        | ..      | ..               | ..     |
|                            | 3000    | 504 <sup>2</sup> | 3504   |

<sup>1</sup> Two "conditioned."<sup>2</sup> Including the two "conditioned" in Connecticut.



## SECRETARY'S TABLE.

We have been requested to publish the appeal of the American Committee for additional contributions to the "Rudolf Virchow Fund." As the time of our publishing prevents a prompt compliance and it has already been published in most of the journals, it is already familiar to our readers. Monuments of this kind are to be commended, and this note may serve to recall the plan to some who, reading the appeal, planned to consider it at a time of greater leisure. Dr. A. Jacobi, 110 W. 34th St., New York, is the secretary who will receipt for all subscriptions sent to him.

\* \*

Dr. Henry E. Tuley, the secretary of the Mississippi Valley Medical Association, wishes us to note the change in the date of the 27th annual meeting of his Society. It is to be held at Put-in-Bay, Ohio, on September 12, 13, and 14, 1901. Very attractive rates, with an opportunity to visit the "Pan-American," are offered.

\* \*

There is probably no one question in medical ethics which requires revision and careful elucidation more than that which relates to patented medicines. At present the word is used as a shibboleth largely, with the resulting slaughter of many who deserve a better fate.

There is nothing more hope-inspiring in our English language than the changes constantly taking place in the meaning of words, and to read a 20th century meaning into a middle of the 19th century document is as misleading as to interpret "prevent" in King James' version of the Psalms by the now-a-days significance of the word. These thoughts are suggested by the recent decree of Justice McPherson in the U. S. Circuit Court confirming the validity of the patent covering phenacetin in connection with many journal articles regarding German products. The owners of the patent are to be congratulated in the

success of their suit, notwithstanding the cry of excessive price so vigorously shouted. In a matter of equity, price ought not to be a factor. At the same time, if our patent laws are unequal, let the effort be made to correct them.

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### LITERATURE NOTES.

3500 QUESTIONS ON MEDICAL SUBJECTS ARRANGED FOR SELF-EXAMINATION. 3d edition enlarged. Philadelphia: P. Blakiston's Son and Co. 229 pp. Price, 10 cents.

The great objection to books of this kind is their abuse, and probably the greatest demand comes from those who improperly use them. Unfortunately the conditions are such that state examinations for license to practise medicine must be matters of record, hence the temptation to cram.

If the book would be used only by the practising physician to assist in a self-test, thus informing himself of his weak points it would be commendable in every way.

THE DETROIT MEDICAL JOURNAL, VOL. I, NO I.

A new medical journal, like a new baby in a neighbor's family, always excites an interest and arouses a curiosity to know what the creature looks like. *Patres familias* are not unlike, even if the offspring be a medical journal. But one's pride for one's progeny may be too pronounced. So, when claims are made in full-faced type: "No dead wood, no abstruse theories, 'fake' advertising tabooed, no long-winded and impractical discussions, always reliable and truthful, fearless, fair, and judicial," one simply smiles at these expressions of pride over a really handsome looking pamphlet, and wonders what will be said, should it live to its second summer. But when there is added: "The only purely medical magazine in North America," we hesitate. It is not an ordinary product of humanity after all. It is something in a class all by itself, and we have no standard wherewith to compare it. We will not attempt an opinion, for the projectors might feel offended were we to differ. We will simply watch with interest the course of the celestial product.

# BULLETIN

OF THE

## American Academy of Medicine

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VOL. V.

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No. 7.

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THE AMERICAN ACADEMY OF MEDICINE is not responsible for the sentiments expressed in any paper or address published in the BULLETIN.

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### EVOLUTION OF THE AMERICAN MEDICAL COLLEGE.<sup>1</sup>

BY ALBERT R. BAKER, M.D., Cleveland, Ohio, Chairman Faculty of the Cleveland College of Physicians and Surgeons.

#### I. THE MEDICAL COLLEGE VERSUS THE MEDICAL PRECEPTOR.

Largely owing to the persistent and judicious guidance of the Association of American Medical Colleges, the medical schools of this country have undergone a complete transformation during the past decade. Until very recently the medical schools of the country were but the natural expansion of the earlier system of medical instruction in the preceptor's office. Young men generally without previous literary or medical education were taken into the office of the practising physician, to whom they rendered such assistance as building fires, caring for horses, and mixing drugs, where they could have the advantages of a library and a few "bones." Here the student "pulled his first tooth, opened his first abscess, performed his first vaccination, applied his first blister, and administered his first emetic. His clinical lectures were heard as he rode from one patient to another with his preceptor." Naturally, as the reputation of a physician increased, students came to him in increasing num-

<sup>1</sup> President's address before the Association of American Medical Colleges, St. Paul, Minn., June 3, 1901.

bers ; gradually his lectures given upon horseback as he rode through the sparsely settled country took a more formal character and were delivered in his office, or even in a public hall. Dissections were undertaken clandestinely ; neighboring physicians were called upon for assistance either in making dissections or in quizzing the students, and thus the nucleus of a medical school was formed. A charter was applied for and obtained, the founder of the school receiving the title of dean, and his associates, professors, and thus a new full-fledged medical college was established, with no endowment, no buildings, no equipment, and no assets except the prospective students' fees, but empowered to confer a high-sounding Latin diploma, which few, if any, of the teachers, could read, much less those upon whom it was conferred. Notwithstanding all the uncomplimentary things that have been said about these pioneer institutions, they performed useful service in the practical education of the physician of the times.

They admirably supplemented the education received in the preceptor's office. Anatomy was generally well taught by laboratory methods. During later years, in many schools, chemistry was also fairly taught and patients in hospitals and dispensaries were utilized to more or less profit in clinical teaching, and the much-abused didactic lecture was not wholly bad, although it was an imposition upon the medical student to compel him to listen to the same course of lectures twice ; to make him take the same dose the third and fourth time, as I have heard has been done, borders upon the ludicrous. If, however, it is kept in mind that the medical college of the past was only intended to supplement and round out the medical education the student received in the preceptor's office and was not intended to furnish a complete medical education, its work will not appear so entirely inadequate as might seem from a hasty examination of the curriculum. The former method of study had many advantages ; while as a rule it did not make scientific practitioners, the medical man educated in the physician's office had many advantages over the one educated in the modern medical school. He had abundant opportunity for clinical study at close range ; he was trained daily in the art of prescribing and dispensing medi-

cine; he learned many of the essentials of a successful practitioner which cannot be gained in the laboratory or even in hospital and dispensary practice. Our patients suffer from mental ills as well as physical ones, and the secret of retaining their confidence through serious illness, of protecting them from the meddlesome interference of some busybody, can only be learned by practical experience, and this experience can be gained nowhere so advantageously as in the office of a successful practitioner. But, notwithstanding the many advantages of study in the preceptor's office, the time-honored custom is fast becoming a tradition of the past. The medical student of to-day is not willing to sweep the office, build fires, groom horses, care for the children, and make himself generally useful to the doctor's family in order to pick up what seem to him only a few crumbs of medical knowledge dispensed by the way.

"The medical preceptor has served his day and age, and must be numbered among the antiquated institutions of a pioneer civilization;"<sup>1</sup> and I fear in some respects our modern medical schools are but poorly filling his place. Recognizing the importance of the medical preceptor the College of Physicians and Surgeons, of Chicago, recommend in its *Announcement* of 1899 that as soon as a student matriculates he select a clinical professor as his preceptor, but I am informed that the plan has never been carried out. It is a suggestion, however, that I believe worthy of further consideration.

## II. OVERCROWDING THE PROFESSION BECAUSE OF TOO MANY MEDICAL SCHOOLS.

Among the unfortunate legacies left us from the past are the numerous medical colleges and the consequent overcrowding of the profession. We are suffering not only from the ease with which a man could surround himself with a few teachers and found a medical school, but there was a sort of swarming process at work to multiply medical schools. The founder or his successors always held a sort of a proprietary interest in the school, he brooked no rival; he was the great luminary, and the rest were but satellites revolving about him; as soon as any one had

<sup>1</sup> Address of Albert R. Baker, M.D., Medical Department of University of Wooster. Reprinted in *Cleveland Medical Gazette*, March, 1889.

aspirations for greater things off came his head, this not infrequently resulting in the founding of a rival medical school, and consequently a lowering of fees, lowering of standards, increase in the number of students, and overcrowding of the profession. One of the most disgraceful chapters of our medical history might be written upon the jealousies and medical fights and quarrels, usually centered about rival medical colleges. The day is past when one surgeon, or one specialist, or one consultant can practically control all the work in his department in a given locality; nor can one man any longer dictate the entire policy of a medical school. One of the most hopeful features of the present day is the decrease in that attitude of belligerent rivalry that surgeons and specialists have entertained toward each other.

My observation has been that there are fewer of those medical feuds in which the wives of professors in rival schools "do not speak as they pass by." Another hopeful sign is the tendency of rival medical schools to unite, thus making one strong institution where two or more weak ones barely existed before.

New York State, in both of her large cities, has given us a good example of what can be done, and the example of New York City and Buffalo should be followed by nearly every city in the country.

There are at least two or three times as many medical schools in the United States as there should be. No new schools should be established unless most liberally endowed. It seems as though our Association could be of great service in bringing about the union of two or more schools, when located in the same city, or even in adjacent cities. This is much more easily accomplished now than formerly. Owing to the general introduction of the laboratory and class methods of graded instruction there is scarcely any limit to the number of teachers that can be profitably used in teaching, and one of the best ways of filling the place of the old preceptor is by subdividing the students into smaller classes and multiplying the number of teachers. Many subjects cannot be profitably taught in classes of more than four or five. There are enough graduates of medicine in the United States to-day to supply the actual demands for the next five or ten years.

The post-graduate schools have in a feeble way endeavored to supplement the knowledge which practising physicians gained in the older way. But they now need longer and better post-graduate courses of instruction than these institutions can give. They, at best, are only temporary makeshifts, like the old didactic lecture course of instruction to supplement the work of the old-time preceptor. What most of these old practitioners need is a year, or two, or three of careful, systematic laboratory and clinical instruction such as our best medical schools are now giving. The increased attendance of post-graduates in regular medical schools is a hopeful sign indeed.

In the Cleveland College of Physicians and Surgeons, from 1890 to 1895, there were 132 men graduated, only two of whom already held the degree of M.D.—about 1.5 per cent. From 1896 to 1901, of 170 graduates, 33 had the title of M.D.—about 19 per cent. If the older practitioner expects to successfully compete with the recent graduate he will have to reenter medical schools and supplement his past education with that of the present. No one can successfully practise to-day without a working knowledge of bacteriology, pharmacology, and many other ologies of which the older doctors never heard when students.

What we need is not *more*, but *better*, doctors, and I know of no better material to make good ones out of than those who are already in the profession.

This Association, in 1894, gave to students and graduates of homeopathic and eclectic schools recognition for work done in those institutions. This action has done more to break down sectarian medicine than anything else. Incidentally it has greatly elevated the standing of the profession in the minds of the people at large, and I doubt not that many of the liberal gifts which have come to medical schools in recent years are due to this cause alone. The farce of a presumably educated profession keeping up the fiction of a fight over an exploded dogma like that of "*Similia Similibus Curantur*," was enough to lower the estimation of the profession in the minds of every one. The Association should make it as easy as possible for all educated, intelligent, honest, legally qualified practitioners to get into the

fold of the regular profession, but taking every precaution to keep out the ignorant quacks and dishonest advertising mountebanks who are unworthy of membership in our ranks.

The adoption of the continuous course in some of our leading schools seems to be a step in the right direction. Even some of the leading literary institutions are beginning to realize that it is not good business policy to shut down the plant for two or three months in the year, and have adopted the continuous course.

It seems almost necessary for the medical schools to remain open the entire year. The dispensaries and most of the clinics must remain open and it is a needless waste of clinical material to have students present only six or eight months of the year. One of the most valuable features of the continuous course is the opportunity that is given new men for places in the faculties of medical schools; another is the possibility of instituting courses of elective study. If the continuous course is generally adopted there will no longer be any excuse for the summer medical schools.

### III. ALL REPUTABLE REGULAR MEDICAL COLLEGES SHOULD BE UNITED IN ONE STRONG EDUCATIONAL BODY.

It is desirable that all the reputable regular medical colleges in the country should be members of this Association. When a school holding membership infringes some technical rule of the Association, I do not believe that it should be pitched bodily out of the Association, as we have sometimes done heretofore. They should be disciplined in some other way. In many cases a reprimand and a promise not to sin again would be all that is needed. In other cases it might be necessary to make a report to the Confederation of the State Medical Examining and Licensing Boards. A refusal of one or more of the state boards to let graduates of such a school come up for examination would soon have the desired effect of either elevating its standard of requirements, or closing it for want of students. Expulsion should be reserved for flagrant violations, and then there should be a mutual understanding between our Association and that of the state medical examining and licensing boards that expulsion



from our Association means a refusal of recognition of the school by the various state boards. I believe such a course is practicable. On the other hand, our standard of requirements for membership should not be so high as to make it unattainable by the less liberally endowed medical schools. Many of the smaller schools in growing cities, even though not large at present, have possibilities which should not be ignored.

At the suggestion of the secretary I took the responsibility of inviting representatives of all the schools affiliated with the Southern Medical College Association to meet with us and participate in our educational program.

It seems to me that the difference in our standard of requirements for membership is so slight that we ought to be able to unite our forces. I have been informed that already several schools, members of the Southern Medical College Association, have made application for membership. I would recommend that a committee be appointed to confer with a committee already appointed from the Southern Association empowered to undertake such preliminary steps as may be necessary to secure the union of all reputable American medical colleges in one educational body.

#### IV. MINIMUM STANDARD REQUIREMENTS FOR PRACTICE OF MEDICINE.

Since the organization of the American Medical College Association eleven years ago, the standard of medical education has advanced by leaps and bounds, and the action of the Association has been acquiesced in by the vast majority of the medical colleges throughout the country so heartily that it has seemed sometimes there was scarcely a limit to the high standard of requirements which might be established; but there must be a line drawn somewhere. Our standard of minimum requirements cannot be an ideal one; it must be a practical one attainable by the average medical school and meeting the requirements of the average medical student.

Huxley<sup>1</sup> says: "The problem of the medical university is to make an average man into a good practical doctor and with no more expense than can be afforded by the class from which doc-

<sup>1</sup>See "Life and Letters," Vol. II., p. 329.

tors are recruited or than will be rewarded by the prospect of an income of four to five hundred pounds a year. It is not right to sacrifice such men and the public on whom they practise for the prospect of making one per cent. of medical students into men of science."

It is barely possible, as Huxley intimates, that if we insist upon requiring of every medical man a thorough preliminary collegiate education, supplemented by a too long and rigorous medical training, we have cultivated tastes and necessities that may unfit him for the station in life he will occupy.

I can easily imagine that such a medical man might not prove a success as a country practitioner. The time and capital invested is wholly out of proportion to the probable returns, either financial, social, or professional.

Some of the more richly endowed institutions may demand an ideal standard and may provide courses of instruction meeting the requirements of a more advanced grade of students, preparing them to become men of science, original investigators, teachers, and specialists. Indeed, some of these schools already do so, and it is no longer necessary, as formerly, for our students to go abroad to obtain such advanced instruction. It would be, however, most unfortunate indeed, for higher medical education if these wealthier institutions were to stand aloof from this organization and refuse to lend their influence in elevating the standard of the entire profession. A Pharisaical attitude is no more commendable in the medical than in the theological world.

After carefully considering this subject the joint committee of the College Association and the Confederation of Medical Examining and Licensing Boards came to the conclusion that the minimum standard for admission should be that adopted by the Confederation of State Medical Examining and Licensing Boards at Columbus, June 5, 1899.<sup>1</sup> The resolutions adopted by the Confederation essentially necessitates a preliminary education equivalent to that of a graduate from a good high school and four courses of graded instruction in a medical college of not less than six months each in four separate years.

It seemed to your committee that this was the lowest possible

<sup>1</sup> See *Buffalo Medical Journal*, August, 1899.

standard that could be accepted in the present state of medical science. The student with less than a high school preliminary education is not fitted to undertake the study of medicine intelligently, and such a student could not hope to master such a complex and extensive subject as that of the science and art of medicine, so as to become a successful practitioner in less than four years. It is hoped that the adoption of this standard will fully meet the requirements of a minimum standard for some time to come, so that our session in the future may be devoted more largely to the scientific and pedagogic part of our work. It is probable that in the future this subject of minimum standards will be largely regulated by the Confederation of Medical Examining and Licensing Boards.

In the meantime it is no more than right and just to medical students, as well as to medical colleges, that some uniform minimum standard be adopted for entrance and graduation,—one that would be recognized throughout the United States. As Dr. Coleman says:<sup>1</sup> "Every state board is obliged to reject applicants for examination whom they know to have endeavored to comply with *some* law." It is clearly impossible to obtain uniform laws throughout the entire country within any reasonable period of time; hence, the necessity of our Association adopting a standard that will meet with the approval of all the state boards.

The minimum requirements of the constitution which will be submitted for your consideration at the executive meeting tonight has been approved by the Confederation of State Medical Examining and Licensing Boards. Ohio has manifested its approval of this standard by enacting it into her statutes, and during the few years since its enactment it has proved most satisfactory, working neither hardship to the students nor to the medical colleges.

#### V. MEDICAL POLITICS.

The work of the state medical examining and licensing boards has already relieved the colleges in many states of the responsibility of deciding who is fitted to enter upon the study and practice of medicine. There is, however, much to be done in

<sup>1</sup> BULLETIN OF THE AMERICAN ACADEMY OF MEDICINE, April, 1901, p. 320.

securing legislation to this end, in states that have no state boards of examination. There is also much hard work to be accomplished in the way of reciprocity between the boards. How this is to be accomplished so as to be a leveling-up, rather than a leveling-down, process is a most serious proposition. It is a subject which this Association will have to consider most seriously in the near future. The injustice that now obtains when a practitioner wishes for any reason to change his location is unendurable.

Of necessity, much of our work heretofore has been of a medico-political character, and to a certain extent must continue to be so. As long as we have forty or fifty examining boards, many members of which are appointed solely as a reward for political service, there will be need of watchful oversight. These boards are as capable of doing great harm as well as great good. No doubt there have been injudicious things done in the name of higher medical education that have made the "judicious grieve."

It has been suggested that our meeting should be identified with the National Teachers' Association rather than with the American Medical Association, hoping thereby to escape from some of the medical politics with which we have been more or less encumbered.

But it would seem "better to endure the ills we have than to fly to those we know not of." With all our faults I am sure that when the history of medical education in the United States comes to be written by the future historian, the work of the Association of American Medical Colleges will receive greater credit than all other agencies combined for unselfish, untiring, effective work in elevating the standard of medical education.

#### VI. MEDICAL PEDAGOGY.

It seems to me as I get the perspective of the work of our Association more in view, that in the future it will be along educational lines. We must introduce better methods of teaching; we must study medical pedagogy. Our work should be a helpful, inspiring, and educational one, rather than a political one. Our sessions should be of the nature of post-graduate work, in

teaching teachers how to teach. We should have more educational and pedagogic sessions. Possibly it would be wise to meet in sections ; or as we did some years ago—holding conferences on Syllabus<sup>1</sup> in different parts of the country.

The widely divergent views entertained at these meetings as to the best method of teaching, and the time required for the study of various subjects, were so marked that it seemed almost impossible to arrive at any definite conclusion. One of the most heated discussions we had was in the conference at Chicago, upon the subject of hygiene ; one teacher maintained that four hours were sufficient to teach this subject, and another insisted that the minimum requirement should be 150 hours, supplemented by laboratory teaching.

I am sure that conferences of this kind would not elicit such radically different opinions at this time and that we could come much nearer to an agreement than a few years since.

I believe that if such conferences could be held and certain questions discussed, such as to the length of time to be devoted to laboratory teaching ? How much to didactic lectures ? To quizzes ? To clinical lectures ? To dispensaries ? How frequently should written tests be exacted ? How many subjects should be taught at one time ? How should they be grouped together so as to economize the student's time to the best advantage ? Should clinical teaching be restricted to the last two years ?

Innumerable questions suggest themselves to the medical teacher, and in regard to many of them there are no rules formulated and no precedents to follow ; each teacher devotes as much time to his subject as his convenience or fancy may dictate.

There is no one to say him nay, unless, perchance, he encroaches upon the time or poaches on the preserves of some equally irresponsible teacher, it is not to be supposed that we could formulate rules like the laws of the Medes and Persians that could not be violated ; but we might outline some approximately ideal standard toward which we might work, and which

<sup>1</sup> See Reports of Committee on Syllabus, *Journal of the American Medical Association*, June 29 and July 6, 1895. Also Report of the Committee on Syllabus, Feb. 15, 1896.

would prove extremely useful to the teacher trying to see the light.

I have no doubt that a comparison of the relative amount of time devoted to the teaching of various subjects in our best institutions would reveal some curious anomalies. How much valuable time of the student even to-day is wasted sitting in a large amphitheater witnessing an abdominal section, or a cataract extraction?

There is a fascination about a capital operation made by a renowned surgeon that holds the attention of the medical student, but which from an educational standard is hardly as profitable as a seat in the gallery at a play.

I submit a tabulated statement of the work required in diseases of the eye, ear, throat, and nose in thirteen medical colleges. The statement is made from *Announcements* that happen to be on my desk, which show some curious anomalies as to the time devoted to the teaching of these subjects. Undoubtedly much of the work in some schools is elective, and this table is not a fair statement of the work required; but, making all due allowance for discrepancies in published announcements and actual work required, it is probable that some schools demand four or five times as much (in certain subjects) of the student's time as others do. For instance, in the tabulated statement above mentioned one school has a total of 99 hours scheduled and another 740 in diseases of eye, ear, nose, and throat.

It is altogether probable that in some of these schools the student is required to attend recitations, quizzes, lectures, clinics on the eye, etc., supplemented with hospital and dispensary practice; in other words, he is taught to fit spectacles, better than the jeweler optician and to treat all minor eye diseases, while in others, all that is demanded is one or two hours devoted to clinical or didactic lectures, supplemented with more or less dispensary practice, all of which may, or may not, be obligatory. Now, which is right? Does one teach too much or the other too little?

If fifteen or twenty professors of ophthalmology would meet and discuss the best method of teaching, might they not arrive at some general conclusion that would be of inestimable value to

| Colleges.                                      | Junior.                             | Weekly time. | Senior.                            | Weekly time. | Total.     | Ratio course. |
|------------------------------------------------|-------------------------------------|--------------|------------------------------------|--------------|------------|---------------|
| University of Buffalo                          | Otology and Laryngology             | 2 hours      | Ophthalmology                      | 3 hours      | } 6 hours  | } 180 hours   |
|                                                | Otology                             | 2 hours      | Laryngology                        | 1 hour       |            |               |
| University of Pennsylvania                     | Otology                             | 2 hours      | Otology                            | 2 hours      | } 8 hours  | } 232 hours   |
|                                                | Laryngology                         | 1 hour       | Laryngology and Rhinology          | 1 hour       |            |               |
|                                                |                                     |              | Ophthalmology                      | 2 hours      |            |               |
| Western Reserve of Cleveland                   | Otology and Laryngology             | 1 hour       | Ophthalmology                      | 1 hour       | } 99 hours |               |
|                                                | Otology                             | 1 hour       | Dispensary and Clinic              | 1 hour       |            |               |
| Medical College of Indiana                     | Otology and Ophthalmology           | 1 hour       | Ophthalmology and Otology          | 2 hours      | } 5 hours  | } 125 hours   |
| Baltimore College of Physicians and Surgeons   | of Diseases of Eye                  | 2 hours      | Laryngology and Rhinology          | 2 hours      |            |               |
|                                                | Physicians and Sur- Diseases of Ear | 1 hour       | Disease of Nose, Throat, and Chest | 6 hours      | 9 hours    | 225 hours     |
| Medico and Chirurgical College of Philadelphia | Laryngology and Otol-ogy            | 5 hours      | Laryngology and Otology            | 5 hours      | } 16 hours | } 464 hours   |
|                                                | Ophthalmology                       | 2 hours      | Ophthalmology                      | 4 hours      |            |               |
| Baltimore Medical College                      | Eye and Ear                         | 2 hours      | Eye and Ear                        | 1 hour       | } 5 hours  | } 125 hours   |
|                                                | Nose and Throat                     | 1 hour       | Nose and Throat                    | 1 hour       |            |               |
| Miami Medical College of Cincinnati            | Ophthalmology                       | 2 hours      | Ophthalmology                      | 3 hours      | } 12 hours | } 348 hours   |
|                                                | Otology, 1 hr.; Rhinol-ogy, 1 hr.   | 2 hours      | Otology                            | 2 hours      |            |               |
| College of Physicians and Surgeons, Chicago    | Otology                             | 1 hour       | Throat and Nose                    | 3 hours      | } 6 hours  | } 198 hours   |
|                                                | Otology                             | 1 hour       | Ophthalmology                      | 2 hours      |            |               |
| Jefferson Medical College                      | Otology and Rhinol-ogy              | 1 hour       | Ophthalmology                      | 1 hour       | } 13 hours | } 377 hours   |
|                                                | Ophthalmology                       | 2 hours      | Laryngology and Rhinology          | 1 hour       |            |               |
| Toledo Medical College                         | Nose and Throat                     | 2 hours      | Ophthalmology                      | 6 hours      | } 13 hours | } 377 hours   |
|                                                |                                     |              | Rat, 2 hrs.; Throat, 3 hrs.        | 5 hours      |            |               |
| Rush Medical College of Chicago                | Eye and Ear                         | 3 hours      | Nose and Throat                    | 2 hours      | } 5 hours  | } 145 hours   |
|                                                | Eye and Ear                         | 2 hours      | Eye and Ear                        | 1 hour       |            |               |
| Cleveland College of Physicians and Surgeons   | Throat, and Nose                    | 1 hour       | Throat and Nose                    | 6 hours      | } 20 hours | } 740 hours   |
|                                                | Physicians and Sur- geons           | 1 hour       | Eye and Ear                        | 9 hours      |            |               |
|                                                |                                     |              | Ophthalmology                      | 1 hour       | } 44 hours | } 135 hours   |
|                                                |                                     |              | Eye, Ear, Nose, and Throat Clinics | 24 hours     |            |               |

the teacher of this subject? It might be possible to suggest in a general way how much knowledge of ophthalmology the student should be obliged to acquire.

The remarks which have been made as to the time to be devoted to the study of diseases of the eye are equally applicable to all special branches.



## WHAT PRELIMINARY EDUCATION BEST FITS A MAN FOR THE STUDY OF MEDICINE?<sup>1</sup>

BY VICTOR C. VAUGHAN, A.M., M.D., Dean of the Medical Department, University of  
Michigan, Ann Arbor, Mich.

In the time allotted to me for the consideration of this very important and essential subject, it is impossible to go into the matter as fully as I should like. Therefore, I will take up only the most salient points. Every man must know how to use his own language. We will take it for granted then, that every one admits that a thorough drill in the English language, in composition and in writing, is desirable. There is just one point that I wish to mention in this connection, rather parenthetically, and that is that I believe that medical students should have a more thorough training in composition after they enter the medical college than most of them get. I have often found that medical students, medical teachers, and many successful practitioners cannot report a case grammatically and have absolutely no ideas of what is necessary for them to know in order to look up the literature on any subject.

I think it was a serious mistake when medical colleges ceased to require a thesis from medical students. I believe that every medical student should be required to write an essay upon some specially selected subject. At least one essay during each of the four years of his college training, and that he should be compelled to work up some subject quite extensively for presentation as a final thesis. This is the only way by which the medical student can learn how to make the proper use of the literature in medicine in looking up a subject. I have made the experiment time and time again of asking some bright student to write an essay for me on the history of the plague, or the history of hydrophobia. I turned the student loose in a library of about 10,000 volumes, containing practically everything that is necessary for him to write quite extensively upon that subject, only to find him as helpless as a new-born babe. He did not know how to proceed.

<sup>1</sup> Read before the Association of American Medical Colleges, St. Paul, Minn., June 3, 1901.

In the second place, I believe we will all admit that every one who enters a learned profession should know the history of his own country. If he is a resident of the United States, he should know the history of the United States. If he is a resident of some foreign country, we should allow him to substitute the history of the country from which he comes. Every learned man should have some knowledge of general history.

Now, we come to the subject of mathematics. How much mathematics is necessary to fit a man for the successful study of medicine? I do not mean to be a specialist in ophthalmology, because if that is his intention he cannot possibly know too much mathematics. But for the ordinary study of medicine as a whole, how much mathematics does he need? He, of course, must know his arithmetic perfectly, his algebra, and he should know something of plane geometry and plane trigonometry. Without plane trigonometry it is impossible for any man to understand physics, which should be taught in all medical colleges. It is one of the great deficiencies of our medical schools, in many of them at least, that physics is not properly taught.

Many teachers contend that physics should be taught elsewhere than in medical schools. I find that the medical department of the University of France still finds it necessary to teach its medical students physics. The University of Berlin also finds it necessary to teach its medical students physics. This branch has been very much neglected, and I hope to see the day when all medical colleges in this country will give physics a prominent place in their curriculum.

The next question is, how much of the natural sciences should a man know who contemplates taking up the study of medicine? He should know something of general biology, botany, and zoology, at least the general classification of plants and animals as well as their structure. He should know this not only from the study of text-books and by attendance at lectures, but from practical laboratory work in biology, including embryology. Furthermore, biology should be taught every student who studies medicine. The same is true of chemistry, especially the chemistry of organic matter.

Now I come to a point in which many of you will no doubt differ with me. I hold that medical schools, all those who can

afford to do so, and I believe all can, should require of their students a reading knowledge of either French or German, or preferably both. As Anglo-Saxons we are rather inclined to boast that a man can travel around the world with a knowledge of only one tongue, English. That is true, but it will be a long time before English will be the language of science or the language of medicine. As long as a small canton in Switzerland, Zurich, for instance, does more for medical education than any state in this country, it is not likely that English will become the language of medicine. It may be said that the medical man can get all that is of importance that is published in either French or German through translations of such work. True, he can get a great deal of it through translations, but, on the other hand, he loses a great deal because everything suffers by translation. Moreover, he falls into a great many serious errors. I can show you an instance where a professor in one of our leading medical colleges has translated an article on the feeding of infants from the German, and, through his ignorance of the German language, he has advised that children with summer diarrhea should be fed on hydrocarbons. The original article distinctly said that the infant should be fed on carbohydrates. This is not an isolated mistake; it is one very frequently made. Even the abstracts that appear in many of our medical journals are very often misleading.

A large part of my professional work has been devoted to consultations, and when I am called in consultation with a doctor, very often a country doctor, and find on his table the *Berliner Medicinische Wochenschrift* or the *Deutsche Medicinische Wochenschrift*, or one of the leading French journals, I feel at once that I am in touch with a man far above the average. I thoroughly believe that all medical colleges that can afford to do so should make this a requirement for admission to their institution, a reading knowledge of both French and German in addition to their own language.

As to Latin and Greek, I do not believe that it is necessary for a man to study these languages for six years in order to succeed in the practice of medicine. I should give to my own boys a certain amount of Greek and Latin because I am sure they will be benefited by it. But the prolonged courses usually

given in these branches I do not believe to be essential to the proper study of medicine.

I have always believed that a state university which is engaged in the teaching of medicine should take an advanced stand in the matter of medical education. Of course, there are many medical schools that cannot afford to have the high requirements which I have spoken of, but I do believe that state universities should not consider the number of students, except as far as may be necessary, because the number of students does in a certain way affect the appropriation. But in state universities in general, and other endowed medical schools, the requirements for admission should be high, and it is the duty of these schools to take the lead in this direction.

With these points in view, the Department of Medicine and Surgery of the University of Michigan has now practically the requirements to which I have referred. We have made these arrangements, and we think them very good ones, although we should not ask all medical schools to have the same requirements. A student who can comply with all the requirements that I have given you can enter this school and if, after four years, he is successful in his work, he can graduate. A student who has not had French or German and who has not had trigonometry can enter our school, but it will take him from five to six years to graduate, according to the conditions imposed upon him at the time of admission. In this way we have a sliding scale, which practically means that the man who can come up to our requirements will graduate in four years, whereas, the student who comes directly from the high school and who cannot meet the requirements, is given an opportunity of making up his trigonometry, his German and his French, with the prospect of graduating within five or six years after his admission.

There is just one other point in considering the question of advanced requirements for admission. We were, of course, compelled to answer the question as to whether or not we should require an A.B. or a B.S. degree for admission. Personally, I am thoroughly opposed to that, and I will tell you the reason why. In the first place, a Bachelor's degree has no standard value. It may mean much and it may mean little. From some schools it means no more than an ordinary high-school educa-

tion, whereas, in some other schools it carries a great deal of weight with it. It is uncertain, however, because it has not been standardized. Therefore, it cannot be made a proper requirement for admission. All of the large universities in this country have now adopted what is known as the elective system; that is, the student, after he has passed his Freshman year, is permitted to attend whatever courses he chooses. His choice is, of course, regulated to some extent by the rules and regulations of such institutions.

Another advantage in not requiring an A.B. degree is this: I am quite confident from my own observation of medical students during the last 25 years, watching them as students and keeping track of them after they have graduated and gone into practice, that it is very desirable that men who begin to study medicine should do so at a comparatively early period in life. It is very seldom that a man who begins to study medicine late in life, although I admit there are some exceptions to this, makes a success in practice. Usually a man with a degree has reached an advanced period in life. It has taken too much time to acquire it. Heretofore we have admitted these students and have given them credit of one year's time, providing they have done a certain amount of scientific work, and as a result of this they will try to do the regular college work in less time, making up what deficiencies they have in three years, and while they are all good students when they enter, they, as a rule, graduate at the foot of the class. That has been my experience.

#### DISCUSSION.

Dr. Winfield S. Hall, Chicago, Ill.:

Mr. President: I feel that I can not let this opportunity pass without saying a word for the college graduate. I have had an opportunity, for quite a number of years, of watching the influence of college training upon medical students. My experience has been such as to lead me to take a ground somewhat different from that which has been taken by Dr. Vaughan. Some of the best men who have finished their course at our institution, and who successfully met the ordeals imposed upon graduates in Chicago and other large metropolitan centers, namely, the competitive examinations for positions in hospitals, have been college graduates. Of course, we all know that any man with a good memory can cram up and pass a competitive examination. That does not mean much, but these men have not stopped there. They have gone on; they

are successful in practice, and are forging ahead to-day at a very rapid and encouraging pace. There is no reason to doubt that they will reach a very high place in the medical profession.

There is this, however, which I have noticed: If these men have spent years in the study of Greek and Latin, they enter the medical school somewhat handicapped. They have not received that long drill in the classics, however, without getting the mental equipment that goes with the years of training. But most of these men have spent years in the study of biology, chemistry, and physics; they are men who take the baccalaureate courses in science in the neighboring institutions, the universities of Wisconsin, Minnesota, Michigan, and Illinois. After their Freshman year they have spent most of their time in the biological and chemical laboratories, and when they enter the medical school they are fully capable of finishing their course in three years, plus two summers, making practically the equivalent of four years. They are the men whose college course has given them an especial advantage.

Dr. John M. Dodson, Chicago, Ill. :

I desire to emphasize what Dr. Hall has said, and I fully agree with him. I cannot understand how the experience of one school should be so different from that of another. The experience which Dr. Vaughan has had is entirely different from the experience which Rush Medical College has had with college men.

It seems to me that we should not lose sight of the fact that the prime object of education is not the acquisition of information but the training of the mind. The important thing is that men who enter a medical school should have been taught to observe accurately, to describe clearly, and to think logically. Of course, in doing that they should have acquired a fair knowledge of one or two foreign languages and a good knowledge of their own. Mathematics are also of importance, and the ancient languages have their place. They are useful as affording a certain kind of culture which cannot be obtained in any other way. Culture, however, is the main object. I believe that the average college graduate coming from a four-year school, with such a training in the modern languages and the sciences as is required by Rush Medical College as a prerequisite for admission to advanced standing, will turn out a better man at the end of three years of medical training than the average student without such a preparation after five years in the medical school. He is able to make much better use of his time, his faculties have been trained to such a degree that he can work to much better advantage. I do think, however, that these men should be granted credit, not in *time*, as for example, one year of credit, but for the work actually accomplished which corresponds to any of the first years of the curriculum of the medical school. The school with which I am connected has modified the rule so that we do not say to the student "We give you a year of advanced standing," but that "We will give you credit major for major." A major means a

certain amount of work,—60 hours of didactic work or 120 hours of laboratory work. This is allowed him for any work that he has done in his science course which is equivalent to that amount of work in our course. This never exceeds nine majors, that is, the work of our first year. The continuous session has been a great convenience to these men. They are able to take an extra quarter in which to make up their deficiencies in the first-year work and then go on with the Sophomore work. Some of them have had to take two quarters.

In some schools human anatomy is offered as an elective study for the B.S. degree and is intended for those students especially who expect to take up the study of medicine. One thing I am sure of and that is that this inducement of a year of credit in the medical course for this work has been one of the strongest incentives that we have had for the young man to take a college course before entering on the study of medicine. We would surely all like to see every medical student spend at least two years in a college before he enters on the study of medicine. To remove that inducement by telling the student that in spite of his four years in college we give him no credit for the work done and put him on the same basis as the high-school graduate, would, to my mind, be a serious step backward. I am aware that the laws of the state of New York refuse these men recognition, but the Board of Regents of New York two years ago endeavored to amend that law, but unfortunately failed to get the signature of the governor. The same bill was again introduced this year but again failed. I thoroughly agree with Dr. Vaughan that we would not recognize a simple degree, but should give the college graduate credit for such actual work as corresponds to any of the courses of the medical curriculum.

Dr. Lewis J. Nolte, Milwaukee, Wis. :

Dr. Vaughan voices exactly the views expressed by Professor Barker, late of Columbia College, which were that we should give our young men the necessary education to admit them to our medical colleges, bringing them up to the standard, if necessary, in certain points. In that way we allow them to go on without giving them any unnecessary education, which will simply prolong their lives as students and carry them on in years so that they cannot enter on their medical careers until late in life. I believe in getting the physician into life as soon as possible with an education that is adequate but not excessive, and which will bring him up to an age when he is capable of coping with the world successfully.

Dr. Vaughan (closing the discussion) :

I evidently did not make myself plainly understood. I agree perfectly with both Dr. Hall and Dr. Dodson. The best students we have in our school to-day are college graduates. If my own boys were to study medicine I would put them through the literary college first,—there is no objection to it. The objection I do make is to accept an A.B. degree for admission to a medical school without inquiring what that A.B. degree means.

The second objection is to give a year's time in medicine for an A.B. degree. I know dozens of students who have received credit of one year's time in medical schools who have studied none of the preliminary branches of medicine. That is the point. A gelatin plate will not harden any quicker for the man who has an A.B. degree than for the man who has not an A.B. degree, and yet the former tries to do in three years what the man directly from the high school does in four years. He cannot do it. The men we have been giving a year's credit, allowing them to finish their course in three years because they were college graduates, men whom we expect to stand at the head of their class when they graduate do not stand there at all. I should be well pleased if every medical student had a preliminary college course before entering a medical college. I believe the medical profession in this country is strong enough to compel the literary schools to give courses which will prepare students for the study of medicine. If the literary schools will not do this, we will give them these courses after the end of the medical college.



## THE TEACHING OF ANATOMY IN MEDICAL SCHOOLS.<sup>1</sup>

BY C. A. HAMANN, M.D., Cleveland, Ohio.

*Mr. President and Gentlemen :* In selecting this subject for a paper before this Association I am aware that I am taking a much discussed topic, one that has from time to time received much attention, and concerning which there has been considerable difference of opinion. The importance of the subject to the medical educator, and the hope that useful points will be brought out in the discussion rather than anything in particular that I have to offer, are the reasons for my bringing it before you.

The value of anatomy as a fundamental study is so apparent and so universally recognized that it would be a waste of time to exploit it here. Not only as a fundamental branch, serving as the basis and ground work of the whole superstructure of medicine is it important, but it should be regarded as more than this. A knowledge of this subject should be kept up and added to. Anatomy should be the ever-present companion of the physician and surgeon. It is the branch of the curriculum that is most fixed and unchangeable.

The teachings of most of the other branches are subject to continual changes and modifications as advances and discoveries are made, but with anatomy it is different. The gross anatomy of man has been so thoroughly worked out that very few discoveries and new facts can be added. It is not my object to discuss research and to attempt to point out what directions and paths investigators must pursue to further advance this science; I wish to discuss the teaching of anatomy to medical students, and shall approach the subject by propounding certain questions and then strive to answer them.

*1st. Who should teach anatomy?* Here we are at once brought face to face with a question which has been differently answered by various writers, and one concerning which there is room for a considerable difference of opinion. In former times

<sup>1</sup> Read before the Association of American Medical Colleges, St. Paul, Minn., June 3, 1901.

anatomy was taught exclusively by men who were practitioners of medicine and surgery, particularly the latter. Prominent examples of these surgeon anatomists were Pancoast, Sabine, Agnew, and others.

This was the custom in England, where the professors of anatomy were nearly all surgeons, and to a certain extent it is still the case. In America, up to quite recent times, this custom was followed. In Germany the two subjects were dissociated earlier, I believe, than in any other country. In France, surgical anatomy was highly cultivated, and the teaching of anatomy was largely in the hands of surgeons.

In recent times there is a marked tendency to specialize, and in the larger schools at any rate, the professor of anatomy is not a practitioner, but devotes his time entirely to teaching and to research. There is no question that the field of anatomy is so vast that in order to attain greatness, indeed to do full justice to the subject, it is necessary for a man to devote his energies to it alone, unhampered by the cares of practice. It is even necessary to sub-divide anatomy—to specialize in this field.

Anatomy is a science that can exist without medicine, but medicine cannot exist without anatomy. Anatomy is not merely a handmaid of medicine—it has long ceased to be that. The further advance of anatomy requires that some men, qualified by their inclinations and training, should devote themselves to the pursuit of investigation in this field. In other words, there should be pure scientists, not only to further the progress of research, but also to train, lead, and inspire others. A large and well-endowed medical school should have a pure scientist at the head of the department of anatomy. He should, however, be relieved of the larger share of undergraduate teaching, and should devote most of his time to investigation. The drudgery of teaching should be performed by men under his direction. In my opinion, however, the pure anatomist is *not* the best man to teach anatomy to medical students. At any rate, in addition to *his* teachings, there should be teaching of *applied anatomy*, by a man who is engaged in the practice of medicine and surgery. The pure anatomist, I repeat, is not the man who will give the most valuable instruction to medical students. He is obviously not interested in so-called practical matters and he

has little or no knowledge of the needs of the medical man in the domain of anatomy. His instructions will not have the same interest to the students, and he will with difficulty hold their attention. It will be hard for him to select from the vast amount of detailed description, those things which are of interest and importance to the coming doctor. His interests will be in another direction. Do not understand me to mean for one moment that I would presume to disparage the pure anatomist; on the contrary, I have the very highest possible respect and admiration for him.

The idea that I wish to convey is that the teachings of the pure anatomist should be supplemented by the teachings of a man engaged and interested in practical medicine and surgery. One who knows his anatomy, who knows and can teach the application of the subject to practical work, one who has the enthusiasm, the energy, and ability, to instil into his students an appreciation of the value and necessity of correct and extensive anatomic knowledge. I plead guilty to the accusation of urging the utilitarian and practical side of anatomy, rather than the purely scientific side, in medical teaching. If only one of the two kinds of teachers is available, I should prefer the man who is engaged in practice. You will say that the practical side of our subject can be taught by the instructors in medicine and surgery and the various specialties. I do not believe that that is feasible, or best. I know that most of the teachers of the practical or clinical branches are not capable of imparting correct and sufficient teaching in applied anatomy. They do not know the subject well enough in the first place. Or, you will say with Gegenbaur, that the practical deductions are apparent, that they flow from the scientific teachings in streams and can be seen and recognized by the students. I do not believe this. The practical deductions that can be made must be pointed out by one who is a good anatomist and who possesses also the necessary clinical knowledge.

*2d. What should be taught?* Of the vast amount of anatomical knowledge that is now the common property of all, there is only a certain portion that should, or indeed can be taught in medical schools. There is abundant opportunity for selection from the great field, and he is the wise and efficient teacher who

makes a judicious selection. There is so much that is superfluous, that is a mere burden upon the memory, valuable for its own sake, as is all knowledge, but it is not necessary for the coming doctor. The medical student is overburdened with work, and it should be the teacher's object to lighten that burden, to cull from the great mass of anatomic details those things that are of value, and to pass lightly over, or ignore, those things which are not. Medical students should not be regarded as future biologists or embryo Huxleys, Darwins, or Leidys, but as coming practitioners of medicine and surgery. It is in these fields that their future work lies and they should be trained with that in view? Very, very few of them will devote themselves to purely scientific work after graduation. I am an exponent of the utilitarian idea in the teaching of anatomy. I would have that portion of anatomy taught, and taught in such a way that the knowledge gained will be of use in practice. Now as to some details regarding what should be taught.

*a. Comparative anatomy:* Should it have a place in the medical curriculum? In a general way I should answer that it should not, but I will modify this somewhat. In an ideal preparation for the study of medicine, the study of comparative anatomy, to the extent of dissection of a few typical forms, should be pursued; in other words, comparative anatomy should be studied before the medical course is begun. If it is not, I think that a brief course, say four or six weeks, in which a specimen of each of the classes of vertebrates is dissected is appropriate. It gives the student a broader view; it trains the hand, and it is of some assistance in preparing him for experimental work on the lower animals, to be done later in the physiologic laboratory. At the Western Reserve University, a brief course of this kind is given in the first year, the main object of it being to render the student familiar with the viscera, vessels, and nerves of those animals with which he subsequently works in practical physiology.

Throughout the course in descriptive anatomy, there should be frequent references to the structure of lower animals. Human anatomy should, to a certain extent, be taught from the standpoint of the morphologist. There are so many facts which can be much more thoroughly comprehended and understood, and

therefore better remembered, when reference is made to the oftentimes simpler and more schematic structure (if you will allow the expression) of lower types.

I believe thoroughly in this way of presenting the subject. But the method should not be pushed to the extreme. The great facts of comparative anatomy and morphology in a medical course, should only be made use of to elucidate and explain the structure of the human body.

*b. Embryology:* This subject should certainly form a part of an anatomic course (provided it is not studied before), for reasons that are quite obvious. If possible, a practical laboratory course of four to six weeks should be given, preferably in the second year, when the student already knows something of the structure of the adult body. Histology forms in most schools a part of the course in anatomy; in some, the instruction is given by the professor of physiology. I shall have nothing to say on this matter, for the present paper deals with the teaching of gross anatomy.

*3d. How long should anatomy be taught?* During the first three years, I should say; possibly it would be better to omit the subject in the third year and return to it in the fourth. When the student has gained and is gaining his knowledge of the clinical branches, he will be much better prepared to appreciate the value of anatomy. This has other advantages. It gives him a review of the subject. We should remember that after a student graduates, he has but little opportunity to pursue the study of practical anatomy further; hence it is well that he should obtain, or at any rate have an opportunity in the medical school of gaining that sound anatomic knowledge, which is to be the basis of his future work in the medical profession. Let me say here, that anatomic studies are not only valuable for the actual practical knowledge which they impart, but also for the reason that they lead to exactness, they lead to habits of searching for the underlying physical changes in disease and injuries, of not being satisfied with vague and indefinite explanations of illness and injuries. Hence I would have as much time devoted to the subject as can, in justice to the other branches, be given to it.

The following is an outline of the course pursued in the Western Reserve University. In the first year, osteology, syndesmology, myology, and augeiology are taken up; and the

student dissects two or three parts. In the second year, the rest of the subject is gone over, *i. e.*, splanchnology neurology, the anatomy of the sense organs and of the genito-urinary organs; the student dissects three parts. The entire body is thus dissected in the first and second years, and the dissection of the first part is repeated. In the second year the student also attends the lectures on applied anatomy.

In the third year there are two lectures, and a demonstration each week on applied anatomy.

*4th. How should anatomy be taught?* Didactic lectures have of recent years been largely replaced by recitations and demonstrations. For a student to listen to a systematic description of bones, muscles, and arteries, in a large amphitheater, where little or nothing can be seen of the object under discussion, is almost a waste of time. I would not do away with didactic lectures altogether. If the teacher is a good lecturer, if he can present the subject in a clear, forcible, and interesting way, a certain number of didactic lectures are of value, and indeed a necessity. But recitations and demonstrations to small sections of the class are more helpful for the successful carrying on of the larger part of the instruction. After all, as has repeatedly been said, the dissecting room is the place to learn anatomy. The student must gain his knowledge by actually handling and working out the parts. "Knife and forceps anatomy," as Mitchell Banks calls it, is the proper kind. The repeated handling of the parts, the gaining of manual and visual familiarity with the body, are what is necessary. Mere verbal knowledge is insufficient—indeed almost useless.

Dissecting is unfortunately neglected by many students. There are some disagreeable features about the work. Every possible effort should be made to render dissection as agreeable as can be. In the first place the material should be well preserved, the arteries and veins well injected. (The methods of embalming and preserving of anatomic material can not be discussed here.) The dissecting room should be kept thoroughly clean, and as free as possible from odors; the offal should not be allowed to accumulate; students should be compelled to keep the table neat and not covered with scraps of fat and muscle, and the parts should be kept moist. Attention to these details serves to make the

naturally somewhat repulsive work much more pleasant. There should be competent demonstrators at hand all the time that dissection is going on,—so much material is wasted by students, structures are destroyed and the work is hurriedly done, or done not at all.

To assist the students I have had printed slips upon which are given a few guides, and the names of the structures that should be worked out. These are of material aid. There is danger of affording too much assistance to the student ; he should be allowed to work out his own salvation, very largely. He should verify the statements made in the text-books as far as possible.

There are, however, many things which the student can not work out himself. These must be shown him. Demonstrations to small sections, say eight or ten men, afford an invaluable method of imparting anatomic instruction. The anatomic museum should be drawn upon and its treasures shown and explained ; within certain limits, students should also be permitted to handle wet and dry preparations. Too often the museums are not made use of at all in anatomic teaching. The student perhaps sees the jars, models, etc., at a distance, in the amphitheater but that is all. Students should be urged to frequent the museum, and the contents should be so arranged that they can be studied. The plan adopted in the University of Edinburgh is a most excellent one. Arranged in galleries about the dissecting room are jars and vessels containing dissections and anatomic preparations, which can be viewed at leisure by the students. In some of the German universities there have been arranged "Studir Saale" in which the specimens, preparations and models are so arranged that they can be well seen from all sides and examined in detail.

In the teaching of osteology much time is wasted by some teachers who go too much into detail. Of what use is it, for instance, to insist that students should know all about the palate bone or the various carpal bones. A few general and leading facts are all that are necessary. Osteology is usually regarded as a dry and uninteresting study. However, it can be made attractive and interesting by a good teacher. In the part of the anatomical course devoted to bones and joints, it should be the duty of the teacher to emphasize the salient points ; for example, much can

be taught concerning the periosteum that will be of benefit to the student in his surgical studies. The whole groundwork of bone pathology can be laid in the osteologic course. Regeneration of bone, subperiosteal resections, epiphysial injuries and many more pathologic processes and injuries that could be mentioned, can be understood thoroughly, only if the student has a proper conception of the normal structure and function of the parts; and the place to learn this is in the anatomic rooms.

Of course all this goes without saying. But I wish to emphasize the connection that should be shown by the teacher between anatomy and practical medicine and surgery. Anatomy as a purely descriptive science is extremely dry and uninteresting, a mere task for the memory. The teacher should by his practical deductions, so interest the student, and endeavor to lead him to think for himself, that he will regard the anatomic course as the most enjoyable and profitable part of the curriculum. I know that this can be done. The objection may be urged that a first-year student can not appreciate the relations between normal and pathologic conditions for as yet he knows nothing of pathology. To a certain extent this is true. But he can be taught something of them, and the interweaving of a certain amount of practical knowledge with the dry details of descriptive anatomy is of immense value.

In the second year the viscera and the nervous system should constitute the main parts of the course. For the future practitioner of internal medicine it is extremely important that these subjects should be very thoroughly taught. I believe that splanchnology and neurology have, in the past, received an insufficient amount of attention. The arteries and muscles were thoroughly described and a knowledge of them insisted upon, whereas the viscera and central nervous system were slighted. This is a great mistake. There is a great deal of time wasted in trying to teach the origin and insertion and relation of muscles, for instance. The relations of arteries, collateral circulation, etc., have received altogether too much attention, in proportion to their importance. How seldom are the larger arteries tied in continuity! What is the use of trying to get the student to memorize the details of their relations? There are more important things.



In the second year the study of applied anatomy, as a separate course of lectures and demonstrations, may be begun. In the third year the study of applied anatomy is completed. In reality, according to the views and methods above outlined, applied anatomy will have been studied from the very first, but I mean by the third-year course in applied anatomy, a course of lectures, demonstrations, and quizzes, which serve, in the first place, as a review and partial repetition of the first two years work, and in the second place, a course in which are brought forth more prominently and more in detail the relations of anatomy to medicine and surgery. The student, being now engaged in the clinical branches, is better qualified to appreciate the value of anatomy and to profit by his instructions. I would not call this course one on surgical anatomy—it should be more than this. Medicine and the specialties should receive attention; anatomy applies to them as well as to surgery. In this course, it is to be presumed that the student possesses a fair knowledge of descriptive anatomy, and with this as a basis, the instructor should proceed to illustrate the practical value of this knowledge, to draw deductions, to explain on an anatomic basis the phenomena of disease and injury.

You may criticize me by saying that too much is thus attempted in the anatomic course, that the teacher is giving a sort of general course on medicine and surgery, and that there won't be much left for the other instructors. Of course there will be overlapping; this may be an objection, or it may not. At any rate there will be enough left for the other chairs. I do not think the teacher of anatomy is overstepping his bounds, when he refers, in a proper and legitimate way, to the relations between his science and pathology and the clinic branches.

Among the many things which can be properly taken up in this course is surface anatomy. By this I mean the actual handling of the cadaver, and the living subject as well, by the students. Many pathologic conditions can be produced on the cadaver, and then studied; for instance fractures, dislocations, hernia, effusions, into joints, etc. It is also approximate, in such a course, to describe and illustrate the anatomy of as many operations as possible.

Organs can be outlined, joint lines indicated,—but I shall not

weary you with a citation of the many ways in which applied anatomy can be made interesting and profitable. It is a question whether applied anatomy should not be taught during the last year of the medical course. Good arguments for doing so can be brought forth.

In the above remarks I have indicated my views as to the spirit in which anatomy should be taught, as to the subjects to be most emphasized and as to the methods to be followed. In conclusion, permit me to offer the following propositions:

1. Anatomic teaching should extend over three years of the medical course.
2. Those parts of the subject should be taught, which will be of most use to the future practitioner; the instruction should therefore be of a practical nature, rather than theoretical and purely scientific.
3. Dependence should be placed upon demonstrations and recitations rather than didactic lectures, and above all, the dissecting room should be regarded as the place to learn anatomy.
4. Instruction in applied anatomy should be given by a competent anatomist, who is also a practitioner.

#### DISCUSSION.

Dr. Hal. C. Wyman, Detroit, Mich.:

I wish to say simply one word in regard to this paper. The writer apparently ignored entirely the value of drawing as a means of teaching anatomy. This is probably an oversight on his part. I have had considerable experience in the teaching of anatomy, and I am convinced that the art of drawing is a most valuable aid. Possibly it might be an excellent idea to teach anatomy for three full years, or even four years. If the student is taught to draw, I think he will be better able to understand anatomical structures and relationships just as the child in school learns the outline of a country and the location of geographic points by making drawings. In my opinion this matter cannot be overestimated.

Dr. Wm. L. Rodman, Philadelphia, Pa.:

I have enjoyed Dr. Hamann's paper very much. I think he has reviewed the subject in a most thoughtful and careful way, and I am sure that we all agree with him in the conclusion he has drawn. I have always believed, as Dr. Hamann does, that the students get too little anatomy in our schools to-day. I believe it is important that they should be taught anatomy for at least three years, getting regional anatomy in the third year or, perhaps as he suggested, omitting it in the third year and returning to it in the fourth.

We would accomplish two things by doing this : Students would understand clinical medicine and surgery much better if they get this regional anatomy in the fourth year. In the second place, students would be better able to pass creditable examinations before state boards. We all know that students at the present time are really not able to put up as good an examination as did the students 30 years ago, when they were taught anatomy in the Senior year. I would at least require the third year in regional anatomy as, I think, practically all the best schools do. It is better, as the essayist said, to skip it in the third year and return to it in the fourth year, thus giving them the benefit of a general review which will help them greatly in their work.

I, furthermore, agree with the essayist in the position he has taken about the minutiae of the anatomy of the bones and muscles. I was impressed with what he said. The best lecture I ever heard in my life on the sphenoid bone was by the best professor in anatomy. He took up the sphenoid bone and said, "Gentlemen, this is a sphenoid bone. All I have to say about it is, d—n the sphenoid bone." I think it was the best lecture he could give. Many anatomists spend several lectures on the sphenoid bone.

The didactic lecture is of more value in anatomy than in any other branch. The personality of the teacher comes in here, as anatomy is nothing more or less than applied to surgery. I do not believe it well to teach anatomy by the quiz system altogether. I think a good didactic lecture, such as my friend Bodine, who is the best teacher of anatomy I ever heard in my life, gives his students will teach the students more anatomy than any quiz course. More attention should be paid to important surgical areas, such as Scarpa's triangle, the perineum, the inguinal canal, etc., and less time spent on the muscles of the back, the sphenoid bone, and such things as have very little practical application in surgery. When I was a student we had to learn the names and course of all the small intrinsic vessels, giving them in their order, and yet the surgeon pays absolutely no attention to them. I am very glad that the doctor presented this very valuable paper, and I hope it will bear fruit.

## MEDICAL SCHOOLS WHICH DO NOT GIVE DIPLOMAS.<sup>1</sup>

By R. H. WHITEHEAD, M.D., Dean Medical Department of the University of North Carolina, Chapel Hill, N. C.

One who glances over the publications of the various organizations of the country relative to medical education is likely to receive the impression that the system is in a somewhat chaotic condition. A closer observation, however, will soon convince us that beneath all the disorder, and to some extent responsible for it, are earnest and persistent efforts to elevate the professional standard. The varied conditions of different portions of the country with respect to population, wealth, and general education, the honest differences of opinion as to the end desired and the best means of attaining that end, are so great that for the present, at least, a certain amount of clashing of forces seems inevitable, even though those forces may all be directed toward the same ultimate goal. Yet the history of our country is such that we may feel hopeful that in the course of time a system of medical education shall be evolved which will be suitable to our people, and in which the profession may take pride.

The object of this paper is to call your attention to the part played by "medical schools which do not give diplomas," and also to the part which such schools may reasonably be expected to play in the future. I should state, at the outset, that the schools I have in mind are such as are *bona fide* departments of universities or literary colleges, and intentionally confine their work to what are commonly called the fundamental branches of medical science.

In the first place, I should like to point out some circumstances which naturally favor instruction in such schools — advantages due on the one hand to their connection with a literary institution, and to small classes on the other. In the first division I note that the commercial spirit, concerning the evils of which so much has been said, is not apt to be present. These schools are not conducted with the idea of making money; they

<sup>1</sup> Read before the Association of American Medical Colleges, St. Paul, Minn., June 3, 1891.

are not expected to do more than pay expenses. Their sessions are long, and exorbitant demands are not made upon the student's time. Many a one, I am sure, upon examining the schedules of some of our medical colleges must have wondered when the students found time to meditate upon and "inwardly digest" all that they had seen, felt, and heard on a given day.

Again, academic methods prevail, the standard of scholarship is high, and the medical student is subject to the same rules of general discipline with his academic fellows.

In such schools all the work is devoted to the fundamental branches; there is no atmosphere of the hospital and clinic to distract the student's attention from them. Doubtless many of you, who teach anatomy, chemistry, or physiology, have experienced trouble from this source.

In such schools, too, the faculty is apt to be formed by trained teachers, men who have chosen teaching as a profession. Bricks and mortar do not constitute a school any more than they constitute a state; it goes without saying that unless it is directed and pervaded by the spirit of the true teacher, the best equipped school cannot do the best work.

Not the least of these advantages, in my opinion, is the opportunity for general culture afforded young men who have been unable to obtain a collegiate education. If the school be a part of university which, in the words of a distinguished university president, is "a place where there is always a breath of freedom in the air; where a sound and various learning is taught heartily without sham or pretense; where all classes and conditions and beliefs are welcome, and men may rise in earnest striving by the might of merit; where wealth is no prejudice and poverty no shame; where there is a will to serve all high ends of a State struggling up out of ignorance into general power; where men are trained to observe closely, to imagine vividly, to reason accurately, and to have about them some humility and some toleration" — no right-minded student can spend two years in a climate even approximating this without benefit.

As to the advantages of small classes, I become more and more impressed by them. The constant contact of pupil with teacher, the opportunities to individualize instruction, to stimu-

late a lazy man or to encourage a dull one, the ability of the students to see the demonstrations clearly, and the comparative facility with which the modern methods of laboratory instruction can be carried on, all seem to me immensely helpful.

But, of course, these circumstances alone do not suffice. The school must be adequately equipped with laboratories presided over by faithful instructors. Proper laboratories, I take it, all now hold to be absolutely essential in medical education; no one now doubts that the laboratory method of instruction, being the natural and logical one, is the best for the student, not merely as a means to the acquisition of facts, but also as a stimulant to the powers of observation and judgment.

I presume that it is unnecessary to say anything in this presence concerning the importance of the fundamental branches of medicine; and I mention the subject only to say that it is this work which the schools under consideration seem particularly adapted to. Given a school possessed of the natural advantages mentioned, properly equipped, and provided with a competent corps of instructors, it necessarily follows that its work will be done well; indeed, the conditions for good work seem almost ideal. And I am in a position to affirm that these schools do accomplish their work in an excellent way, and perform a distinct service for their communities. For example, I know one such school which was established, in large measure, as the result of complaints by the state board of medical examiners that such a large proportion of the applicants for license were found deficient in these fundamental branches (they stated, among other things, that less than one-third of the applicants passed their examination upon anatomy). I am authorized to say that since the establishment of the school no applicant, who has successfully completed his two-year course, has failed to pass the examination for license—no matter where he obtained his diploma. I think I may claim, then, that these schools are worthy factors in medical education, and as such deserve the support of those who are interested in its improvement. In this connection it is pleasant to state that such schools are accorded membership in your Association, and that their work is recognized by such bodies as the Board of Regents of New York.

A few words, in conclusion, as to the part which such schools

may be expected to play in the future. According to our prevailing system of education, a student who desires a good collegiate education preliminary to his course in medicine must usually devote eight years to study before he can obtain license. If, in addition, a year or two of hospital experience is considered advisable, the man's life is half spent before he can begin to "make a living." There is, moreover, a possible danger that the best education may be removed beyond the reach of those who are not possessed of a considerable portion of this world's goods. These conditions are receiving some attention (many are doubting if they are necessary), and some "short cuts" have been devised. If it shall be decided that such movements are desirable, the class of schools under discussion will be in a position to render valuable service. There are several scientific studies which, while absolutely necessary in the medical curriculum, are also useful for general educational purposes. By making such studies elective in the Junior and Senior years of the collegiate course, it would be possible to shorten materially the time now required to obtain the B.S. and M.D. degrees, without damage to the student's collegiate or medical education. Is not, for example, the extensive course in physiology required of medical students as useful as the elementary course given in the biologic department of the college? And is not the anatomy of man as good and pure science as the anatomy of the cat?

This short paper does not by any means pretend to exhaust the subject; but I trust that it has been sufficient, in some degree, to show that these schools are worthy elements in our system of medical education.

#### DISCUSSION.

Dr. S. W. Williston, Lawrence, Kansas :

Dr. Vaughan, in his very excellent paper, spoke of the desirability of a closer relationship between literary work and such preparatory work as leads to the study of medicine. He said that this work should become more intimately associated with a general university course. I believe that this can be brought about in no better way, nor more fully, than by the recognition of the work that literary colleges or universities are giving to-day in the preparatory and fundamental branches of medicine. I represent a university which offers such a course. We do not wish to offer the third- and fourth-year courses in the study of medicine, because the facilities which we ought to

have for such work are beyond us. What we have we do not believe is sufficient for proper medical education. On the other hand, we do represent an endowed institution where all facilities for the successful study of the fundamental branches of medicine are at hand and can be given to the best advantage. The university has recognized this work in the medical department by agreeing to confer on all students who have finished the work as a part of the four-year course, the degree of B.A., thus shortening the time for the medical degree.

As has already been stated, the longer the preparation for medicine is carried after the twenty-fifth year of the student's life, the greater the injury which is done him. The work done in our institution conforms with the requirements as laid down by the college association, and in no instance do we allow a student to pass or receive credits who is not well prepared to enter the third year of a good clinical school. Many schools in the west are anxious to do likewise and are willing and ready to prepare students for the best clinical work. I believe all large state universities that are not favorably located for the real professional branches of medicine will be glad of this opportunity, not because of the need of more medical schools, but because we recognize the fact that we can give instruction as well as can be given in medical colleges in anatomy, chemistry, physiology, histology, and pathology. We are working on an endowed basis and the student does not begin to pay for the cost of his education. Furthermore, I do not believe that the scientific branches can be properly taught in a medical school where the student pays the whole cost. It cannot be done in a literary college, and we ought not to expect a student to pay even the larger part of it in a medical college. I endorse all that Dr. Whitehead has said on this subject, because I know by practical experience what can be done in this line of work.

Dr. Seneca Egbert, Philadelphia, Pa.:

This subject involves three or four details that I think some of us do not clearly understand. In the first place, as one who has had to arrange a curriculum for a number of years, my difficulty has been to find sufficient time for what seems to be the absolutely necessary studies and branches for a well-balanced medical course. Much has been said to-day about teaching anatomy for three years. Dr. Vaughan has advocated the teaching of French and German in the medical school, requiring a considerable amount of time—many hours a week. The majority of mankind has but a limited capacity for doing a certain amount of work every day, and besides our four-year course in medicine is scarcely long enough for the studies that we feel are necessary for a successful training. The schools represented by Drs. Whitehead and Williston can do this preliminary work much better than many of the medical schools in this country. We are looking with tolerance, though some may not approve, upon the affiliation of certain of our larger medical institutions with literary colleges. Therefore it would scarcely be fair to the schools doing this preparatory work if we should exclude them from membership in this Association. A man can go to Cornell, enter the scientific department, and in six years get two degrees, B.S., and M.D. The



same is true of two New York schools, the University of Chicago in affiliation with the Rush Medical College, and the University of Pennsylvania. It seems to me that other colleges which are amply able to give just as good a course, ought to have the same privilege, by being allowed to give men their first two years in medicine just as the other literary colleges do which I have mentioned.

We have now reached a critical period in medical education. We want every man who enters the medical profession to be as well educated as possible. On the other hand, some of you have said that it does not pay a man to take a college course, because it takes too long. Most men are 25 years of age when they graduate from a scientific college and are ready to enter a medical college. One reason for this is, that we have been increasing our requirements for entering a literary college and a man must, of necessity, spend more time in a preparatory school so as to be able to meet the requirements. It is harder to get into the Freshman class of an academic school today than it was to enter the Junior class 50 years ago.

The preparatory colleges must do something to help along the good work. The leading literary colleges are doing all they can to give first-class preparation in medicine. I know more about Princeton than any other school because I am a graduate of that college. A man can get a better course there in the fundamental sciences, barring anatomy and second-year medical chemistry, than he can in most medical schools. I have found that most of the college graduates have taken a high standing in medical work. I agree there with Dr. Hall. The requirements of this Association are that a man shall not be entitled to advanced standing in a medical school unless he has done science work in a literary college. Therefore, I see no reason why schools like Dr. Williston's and Dr. Whitehead's should not have full privileges. They can do the work just as well. What we want from them are men who are well trained in French and English and the fundamental sciences,—men who are well equipped for the practical and clinical work which they will get in the third- and fourth-year courses of a medical college.

Dr. Logan, Kansas City, Mo.:

I heartily endorse the remarks of the previous speaker. I think this is a question which we have been trying to answer for some time. These universities are certainly making a step in the right direction, and it is not for us, who are teaching advanced medicine, to endeavor to jeopardize their interests and thus prevent them from accomplishing what we have so long longed for in medical education. I see no reason in the world why this would not be of the greatest benefit to the medical colleges. It certainly puts into our hands men who are thoroughly prepared and thoroughly able to appreciate what we have to offer them. It will not only lighten the labor for the medical teacher, but it will increase the knowledge and capabilities of the medical student. We must not forget that.

Dr. Seneca Egbert, Philadelphia, Pa.:

I do not believe that I am violating any confidences when I say that the

Board of Trustees of Princeton are contemplating the adding of a chair of anatomy and physiology to the work now done in that college. I do not believe that they anticipate or desire to establish a medical department at that university. Princeton is merely following in the footsteps of other colleges who have established similar courses, largely because the medical profession of the country have asked these institutions to give their students some work in the sciences preparatory to medicine, work which will entitle them to advanced standing in the medical school. Nearly every medical college in the country has said to these institutions: "Help the boys along with this preliminary work and we will give them advanced standing." Much money has been spent by these schools to give the students this work, and we must all admit that their course is beyond reproach.

Dr. John M. Dodson, Chicago, Ill.:

I am of the opinion that much advantage would accrue to both the college and the student if the first year's work in the medical school was transferred to the literary school. After July 1st, Rush Medical College, of Chicago, will offer no teaching in the first and second years in its own buildings. The teaching in these branches will be given in the University of Chicago, with which Rush Medical College is now affiliated. This is done because it is believed to be of great advantage to divorce entirely the teaching of the fundamental branches from the teaching of the clinical years. We have learned by experience that the Freshman and Sophomore students are distracted from their work, if it is done in the same building with clinical work. They persist in attending clinics to the great detriment of the work in the fundamental branches. Further than that, if the work is done in the university, the students are there placed in an atmosphere of research and investigation which is something that the medical profession needs to cultivate and encourage at the present time.

I had an opportunity last year to visit a number of colleges and universities in this country, particularly in the south, and I was greatly impressed with the thought of the advantages which might accrue from a similar movement in those schools. It seems to me that the complete transfer of this work would serve several very important things. First, it would place the entrance requirements in the hands of the university or college where, in almost all instances, they would be much better guarded than now. Secondly, it would place the medical student in an atmosphere of an institution of general learning. Third, it would transfer the teaching of these branches to men whose lives are devoted to that work, instead of those whose teaching is done as a sort of stepping-stone to something else. Most of our teachers of anatomy and chemistry are not anatomists and chemists, but they are doing this work in the hope that some one will drop out of the teaching faculty, and that they will then be promoted to the chairs of medicine or surgery or something else. It is a foregone conclusion that the best work cannot be done in this way. Fourth, it would be a measure of economy, as it would avoid the duplication of the equipment for laboratory and other work. Human anatomy ought to be taught as a branch of general learning and not as a

mere stepping-stone. Pathology should be put in the same class. Pharmacology might well be relegated to the literary years, thus divorcing these branches in such a way that they would be studied as general sciences.

Medicine, it seems to me, is an applied science. The proper course of procedure in the study of an applied science is first the mastery of the science itself, and then the study of its application. Perhaps I can best illustrate by citing an example: Take a student who enters a medical school without any knowledge of chemistry. He is impressed with the idea that he is preparing himself for medicine. His time is very fully occupied, and he is jealous of every moment. Of every topic that comes up in his study of chemistry, he wonders as to whether it will be of any practical value to him. If he thinks it will not, he is bound to neglect it. Yet neither he nor his teacher can possibly tell him what part of chemistry is going to be of service to him in the future. The very things that seem to be of purely theoretical interest to-day, will two or three years hence be of the utmost practical importance. If he has been broadly and thoroughly trained he can keep abreast with the progress of chemistry, read its current literature intelligently, and be prepared to adapt new views and facts when they come to him, although he may not be an expert chemist. I am firmly convinced that this is a step in the right direction and I sincerely hope that this Association will place the medical departments of those universities teaching only the first two years of medicine, on exactly the same footing as the medical schools.

Dr. Walter L. Carr, New York City :

I wish to endorse the sentiments expressed by the gentlemen who have spoken on this subject. I have always believed it to be of great advantage to the medical student to get his preliminary education in the fundamental branches in an atmosphere entirely free from clinics. I have always noticed that as soon as a student begins to attend clinics and sees a little of practical medicine, it is a very hard matter to get him to go thoroughly and scientifically into these primary branches. I am heartily in favor of keeping him entirely away from the practical work in medicine, and holding him down to that work which will fit him for the study of clinical work.

Dr. Wm. H. Wathen, Louisville, Ky.:

I do not believe it is best, by any means, to confine the student for the first two years to the literary or scientific department of a university. It is very well to do so for the first year, keeping him away from all clinical advantages. If he knows no chemistry when he enters the school, he will not become a chemist within two years. If a medical student receives his first or second year of instruction in the medical department of the college, and if his time is consumed in attending clinics in place of his other work, it is because of the faulty curriculum of the college, and because of faulty management. The college of which I am dean has a hospital immediately adjoining the college. There all the dispensary work is carried on every morning in the week. Immediately afterward we have the operations in the clinical amphitheater. The first- and second-year men are not permitted to enter

certain clinics under any condition. They are kept engaged in their laboratories of histology, chemistry, pathology, or such laboratory as we may see fit to put them into during those hours. In this way we have no trouble, whatever, in keeping these students out of our clinics. They are not allowed there, and they are required to be somewhere else. I admit that second-year students may derive certain benefits from some clinics. If you deprive them from attendance on these clinics they will be wandering around and doing nothing. There can be no objection whatever for the student in his second year to witness a surgical clinic for one hour during the day, but make your curriculum such that that student is compelled to be just where you want him to be. If you conduct your college properly he will certainly be there; otherwise he should not receive any credits for any work at the end of the year. We must insist on attendance on the required work.

Dr. D. C. Bryant, Omaha :

Do I understand that the teachers in these schools are to be physicians or scientific men ?

Dr. Whitehead :

I said nothing about that. Personally, I am of the opinion that most of them ought to be physicians.

Dr. Bryant :

If they are not physicians it seems to me that we are losing sight of an important thing as one of the speakers has already mentioned. He said that medicine is an applied science. If we have a man teaching anatomy who knows nothing about surgery, he does not teach the anatomy properly; he does not point out those things which are most necessary in medicine and surgery. The same thing applies to the chemist. There is an immense amount of chemistry which is entirely unnecessary to the medical man, and on the other hand there are some parts of chemistry which are very necessary to the medical man. Therefore, unless the chemist is an educated physician, the student will not get these necessary points.

The same applies to bacteriology where we have an endless number of germs which are of no importance whatever, and the very few which are important will not be pointed out by an unscientific man. The same applies to pathology and all the other branches. Then arises the question whether we are making the man better by giving him two years of his medical course in the university, granting him an A.B. degree, and giving him two years in the medical college for which we grant him an M.D. degree, or whether it would be better for him to follow the course we are now pursuing. Which will educate him the better? Education is what we are after.

Dr. S. W. Williston, Lawrence, Kan.:

In the school which I represent our teachers are not all doctors of medicine. Two years ago we sent all over this country to get a properly prepared teacher of physiology who was a doctor. We failed to find him, however, and we finally had to take a doctor of philosophy from Heidelberg. We always try to get the very best man we can.

Dr. Victor C. Vaughan, Ann Arbor, Mich.:

I think the work that is being done in the University of North Carolina is right in line with my argument. I say that we ought to compel the literary colleges to fit students for the study of medicine, and we certainly ought to be strong enough to compel the literary colleges to make their courses suitable. The University of Michigan will allow a man, who has all the requirements I mentioned, enter and graduate in four years. If he does not have those requirements he must take six years. What will be the result? Most of these men will go to some literary college and get those two years of work before they come to us. I often have a man write to me telling me that he is a high-school graduate and that he desires to enter our school. I answer him by saying that he will have to take six years, or that he can take two years of literary work in Yale and Princeton, and then come to us and graduate in four years. That will increase the number of students entering the literary schools, and it will force these schools to shape their course for men who desire to enter medical colleges later on.

The University of Michigan was the first to adopt the combined course by allowing a student to graduate in six years. I assure you it was a hard struggle to get the faculty of the literary department to adopt this course. The idea is prevalent among many men that useful information is something a student must not get in his college course. The trustees of our institution fail to see the reason why a medical student should know Latin or Greek. Finally by force of argument and circumstances, we compelled the literary department of the University of Michigan to yield us two years of medical study. The greatest trouble we have, and the one on which they held out the longest, was to teach human anatomy in this course. They would not allow a man in the literary department to study human anatomy and get credit for it because he could use it in after-life. But he could study cat-anatomy and frog-anatomy and crayfish-anatomy and get credit for it.

There is one thing we seldom think of. The German student, for instance, goes through the gymnasium which is equivalent to about the middle of our Sophomore year in our best universities. After he gets through the gymnasium he goes to the university and then studies medicine, or philosophy, or law, or whatever he pleases. It is nonsense to ask most young men who have to pay their own way through school, to go four years to the literary college and then four years to the medical college. It simply cannot be done. It is working an injustice. Furthermore, we should not accept every A.B. or B.S. without first inquiring as to the standing of that degree.

Dr. W. J. Means, Columbus, Ohio:

There is one point in this discussion which has not been brought out, and which is an important one in the matter of preliminary education. When we make the minimum entrance requirement, graduation from the high school, we lose sight of the age at which these young men get through our high schools. In many of them, in fact I might say 50 per cent., the graduates are about 17 or 18 years of age. A boy at 17 is not old enough to enter a medical college or to commence his medical study, although he has the

preliminary requirements as laid down by the American Medical College Association. I think it would be a great deal better to offer him a six years' course, and at the end of that course to confer upon him the degrees of B.S. or A.B. and M.D. that will allow him to graduate from the medical college at the age of 23, the possessor of two degrees. It seems to me that this should be considered in our discussion on preliminary requirements.

Dr. P. Richard Taylor, Louisville, Ky.:

This discussion has not been limited to the writer's paper which had reference to those medical colleges which do not confer a degree. It offers a student two years of work, after which he can enter a school which will graduate him in the regular time. He said nothing whatever about full-fledged medical schools, referring merely to those who teach the fundamental branches.

Dr. R. H. Whitehead (closing the discussion):

My paper was written for the purpose of suggesting a general, rather than a detailed, discussion of the subject referred to. I have nothing to add and merely wish to thank the Association very warmly for the kindness with which the paper was received.

# ON THE IMPORTANCE OF ACCURATE AND COMPLETE RECORDS OF THE STUDENTS' WORK AND THE ISSUE OF CREDIT CARDS FOR THE SAME.<sup>1</sup>

By JOHN M. DODSON, M.D., Rush Medical College, Chicago.

In passing upon the credits presented by students applying for advanced standing from other medical schools, the writer has been struck by the great diversity of the forms used for this purpose and the lack of clearness and accuracy in many cases. In a four-year graded course, if a student is to be dealt with intelligently and justly, and the degree of M.D. conferred on each one who is fairly entitled to it, and on no other, it is imperative that the nature and extent of his work and the results of the examinations to which he is submitted, should be carefully recorded from time to time, and that he should be kept informed of his progress by the issue to him of a credit card at stated intervals. The importance of these matters becomes still greater when a student comes to change from one school to another. This tendency of students to migrate during the medical course is obviously on the increase. It is a tendency, moreover, which should be encouraged rather than otherwise, as tending, in the case of the good student with an honest purpose, to result in greater breadth of view and of knowledge, and as extending the student's range of choice in the selection of those teachers, courses, and, especially, clinical advantages, which are adapted to his needs. The migratory plan constitutes one of the strongest features of the German university system.

Whether one does or does not coincide in this view of the advantages of migration, the fact is indisputable, and one must concede the right of every student to a "card of dismissal," whenever he wishes to leave a college, which card, or a credit slip accompanying the same, should set forth fully and clearly just what work he has accomplished and the length of his attendance on the course for the medical degree.

It seems evident that the importance of this matter is not uni-

<sup>1</sup> Read at the annual meeting of the Association of American Medical Colleges, St. Paul, Minnesota, June 3, 1901.

versally recognized and the writer desires to call attention to the principal items which are essential. First, the annual announcement or catalogue, a bulletin, circular of information, or similar document, should contain a definite and detailed statement of the work done in each branch of medicine. It is very convenient for this purpose that there should be distinct departments in the college and that, under each department, the work offered should be outlined, conveniently in numbered or lettered courses, stating the topics included, the nature of the work, whether didactic, recitation, conference, laboratory, practical or clinical, or two or more of these combined, the number of hours given to each kind of work, and the names of the instructors in charge of the same. It is of advantage to have some term covering a large number of hours, to express the value of the course. For example, in the college with which the writer is connected, a major signifies one hour daily of didactic or clinical work for one-quarter (three months), a total of sixty hours, or two hours daily of practical laboratory or clinical work for the same period. A one-hour lecture or recitation is considered to require two hours of outside study on the part of the pupil and to be equivalent to two hours of laboratory, practical or clinical work, which should require about one hour of preparation.

If such a descriptive statement of the work be set forth in the annual announcement, the credit card of a student need only set forth the courses he has successfully taken, by department and number, in order to convey to any one an exact idea of the credit he has received on the course for the degree.

Second, at the end of the term, quarter, semester, or annual session, as the case may be, the returns from the examinations should be sent by each department to the dean, recorder, secretary, or such officer as has been selected for this service, and by him recorded in a book of records, or on record cards. The card system presents the great advantage of flexibility, as new cards can be inserted at any time, the exact alphabetic order being preserved and no separate index being required. The danger of loss is obviated by the use of perforated cards, kept in place by a steel rod, or by a light wood or metal strip running across the top of one end of the cards and kept in place by lock and key. This record should contain the student's name, res-



idence, age, date of admission to the school, the credentials on which he was admitted,—whether on high-school diploma, college credits or degree, or on examinations, and any subjects on which he was conditioned on the entrance examination. There should also be recorded the date of beginning and ending of his attendance upon each session. The most important content of his record will be the statement of the courses he has taken and the results of his examination in each. In making up his final grade for each course, account should be taken of his attendance, daily work in recitation, laboratory or clinic, the final examination not constituting the sole factor in the event. A system of indeterminate marking is preferable to the numerical system. The chief objection to the latter is the fact that it purports to be what it never can be, mathematically exact. It is exceedingly difficult to draw such fine distinctions as are implied by the numbers 83, 84, 85, etc., on the scale of 100, even when papers are all marked by one examiner. When several examiners are engaged in marking the papers of a large class, such exactness becomes quite impossible. The mark 90 may be given by one examiner to a paper of less value than another receiving only 80 from a second examiner. Such a system as the following is therefore to be preferred, as a rule: "A"—Excellent; "B"—Good; "C"—Fair; "D"—Poor, (must take another examination); "E"—Bad (must take the course over again). In a competitive examination for a prize or other reward, the percentage plan is essential. The use of red ink or some color other than that used for marks above passing grade, for those below grade, greatly facilitates subsequent reference, as it enables one to tell at a glance the general character of a student's work.

The record card may also be conveniently used as a ledger account of the student's financial transactions with the school, though it is usually more convenient to keep these separately. Entries of deportment may likewise be made, and especially should instances of dishonesty in examination, with the penalty imposed therefore, be recorded in red ink. The use of a cheaply bound blank book for examinations has been found of value, both as a convenience to the student in the written examination, and to the examiner, and as a check against cheating. The first page of the cover may contain instructions as to the conduct

of the examination, and lines for the insertion of the department, number of course, date, etc. In large classes, if the papers or books are numbered consecutively, by a numbering machine as they are handed in, the possibility of loss is greatly lessened, or, that which is of more frequent occurrence, the claim by a student, that his paper has been lost, when he did not hand in one.

Third, when the student is allowed some election of his work, the use of a registration card is necessary. One of these is filled out by each student at the beginning of the quarter or session, by inserting in the column reserved therefor, the courses which he desires to take that quarter. These are indicated by number and placed in lines according to the departments indicated. This card must be submitted to the dean for his approval and must receive his signature and stamp. The student prepares this card in duplicate, one card being retained in the office and the other handed to him. From these cards entries are made to the student's record book or card, of the courses for which he is registered, and he is held responsible for these courses. Such registration cards are a great convenience in any school, but are not indispensable excepting where the elective system is in vogue.

Fourth, after the close of each annual session, a credit card or slip should be issued to each student, who has paid his fees in full, maintained satisfactory department, and is otherwise entitled thereto. Such card, which ought, if he requests it, to be made a "card of dismissal," should contain the student's name, date of beginning and ending of the session, and a specific statement of the courses which he has successfully completed during the year. Any condition he has received should be indelibly set down, as should any record against his attendance or department. We have deemed it unnecessary to record the mark received by the student in each course, and thought it sufficient to note only the general average attained, as excellent, good, fair, or poor.

The use of an interleaved credit-slip book, with carbon copy, has been found an efficient protection against the falsification of the record by a dishonest student. The course for the medical degree has come to be so long and expensive, the examinations

so rigid and the value of the diploma so great, as an indispensable requisite in securing a license to practise, that the temptation to forge or alter credit slips is very great and has proved irresistible in several cases which have come under the writer's observation. The preservation in the college office of an exact carbon copy of the slip issued to the student is a perfect safeguard against such dishonesty. It might not be a bad idea for each college in this Association to send to the secretary the name of every student detected in such and similar dishonest practices. Such men should be weeded out of the student body and not allowed to become members of the medical profession, at least, not until evidence of complete reform has been furnished. The black-list proposed would be a very useful means to this end.

Specimens of the documents referred to in this paper—student's record card, his registration card and the credit slip, together with a blank examination book,—are submitted for the inspection of the members of the Association.

Absolute uniformity in the matter of examination records and the like, among the several schools, is hardly possible, is not essential, perhaps not even desirable, but some clear, accurate and intelligible system should be adopted by each college, and the dean, secretary or other officer of each school should have a clear understanding of the methods of other schools from which his institution receives students.

In view of the importance of these matters, I beg to submit the following resolution: *Resolved*, That a committee of three be appointed by the chair to consider the matter of students' records and credits and to report at the next annual meeting. Such committee should:

- (1) Secure information from the colleges represented in the Association, as to the methods now in use;
- (2) Investigate the methods in vogue in a few of the leading literary colleges and universities;
- (3) Consider the possibility of securing some degree of uniformity among the various medical colleges; and
- (4) Outline a general scheme for students' records and credit slips, which may be utilized by any college, with such modifications as the local conditions of the institution require.

## DISCUSSION.

Dr. Wm. H. Wathen, Louisville, Ky.:

I have listened with much pleasure to Dr. Dodson's paper because I have observed, as dean of a medical college, the great irregularity in the keeping of records by different colleges. I have deplored the lack of any system that will enable one college to accurately come to the conclusion as to the credits a student from another college deserves. There is no trouble in adopting a system providing we do not adopt what is known as the elective system. If we adopt a regular course it is an easy matter. The work of keeping the books and records of a four-year course is extremely laborious, unless you adopt a very accurate system. Realizing that fact, I prepared a book two years ago in which the following appeared: First, the name of every student, his address, his degree and his credits for entrance, the number of his seat, names and addresses of his references, the amount of money he has paid, the number of his receipt, the subjects upon which he has been examined, and the credits that he has received on each subject, and such other memoranda as may be necessary. These books are for one year. By this means I can refer within one minute to any individual student's record and give you anything that you want to know, within less than five minutes, in relation to that man. At the end of each session there is held in each department a written examination. The teacher marks his papers carefully and they are then returned to the office of the secretary who records them in this book which is kept indefinitely. The papers are filed away.

What does the student get? If he has passed his work successfully we give him a certificate stating that he has passed successful examinations in certain branches. This is all printed upon the certificate which bears the seal of the school and the signature of the dean. This is given him to admit him to another school. For the first year we only say that he has passed examinations and is admissible to the Sophomore year. The second year we say he has passed final examinations in the branches named and is admissible to the Junior year. For the Junior year we say he has passed examinations and is admissible to the Senior year. For the Senior year we say he has passed final examinations in all the branches and is eligible to have the degree of M.D. conferred upon him. By means of these tickets the dean of any other school can see just what work the student has done. We do not put the averages on the certificates, but we make it a rule that a student must have passed a certain average before he can be considered as having passed a creditable examination. Furthermore, he must have attended a full course of lectures before he is entitled to credits.

Dr. J. W. Holland, Philadelphia, Pa.:

I want to give my testimony to the value of the card-index system, which Dr. Dodson did not refer to. I was recently called into court as a witness to testify as to the medical education of a man who was supposed to have graduated in medicine from our college about ten years ago, before I was dean. I was told to bring all the books bearing on the case. Although many

changes had occurred during that time, I managed to rummage through our old books and I carried quite a stack of books over for the purpose of reporting on the details of that man's education.

At the present time we are using the card-index system and everything concerning that man would be found on one small card. That card is transferred from one year to another, into a box kept for that purpose, and when the student leaves the college it is put into a general box in which the cards are all alphabetically arranged. His name is only entered once which is an immense saving of labor. On one side of the card is a statement of the credentials on which he was admitted, his age, his race, the year when he expects to graduate. On the other side is kept a record of his work in college and his account books. After he has graduated this card becomes an alumnus card. If he does not graduate it goes into what we call a waste heap, but it is kept just the same. If any question should be raised at any time in regard to any of our students, all we would have to take to court now is this little card. We would look him up just as we would a book in the library, and when the card is found, we have the entire history of that man. The system is easily kept in order, requiring but little labor, and I am sure that it will prevail in our colleges.

Dr. John M. Dodson (in closing), Chicago, Ill.:

This may seem perhaps a small matter and might not interest the gentlemen who have nothing to do with the administrative work of the college, but I am sure that the officer of any institution, who deals with the students, will accord with me in the feeling that the matter is one of great importance. It is sometimes extremely difficult to determine just what credit a student is entitled to. Perhaps, he may have been expelled and he goes to some other school with a plausible story where he may be admitted on the supposition that he is all right. If proper records have been kept, they can be at once referred to, and the second school informed as to the facts in the case.

I would like to emphasize what I believe to be important and what might easily be done ; that is, the use of the Association, through its secretary, as a bureau of information in regard to these students. No college, a member of this Association, should admit a student who has been expelled by another college for dishonest practices. I do not know how this could be brought about better than by an information and reference bureau of this sort.

## EDUCATION IN HOSPITAL AND LABORATORY.<sup>1</sup>

By H. GIBBON WELLS, M.D., Chicago.

The teaching of pathology appears not very well in line with the discussion this afternoon, especially because pathology lies between the domain of the practical and the purely scientific. Pathology is the connecting link between the various branches of science, pure and simple, and the applied sciences of the last two years. For that reason the teaching in different schools is not in accord in point of time at which it is given. In one school pathology is taught in the third year and at another, in the second year. This gives rise to considerable confusion when students go from one school to another. The reason for this lies in the nature of the subject itself. It is utterly impossible for the student to study pathology to advantage unless he has had a thorough grounding in the elementary work of the first two years. It is absurd for the student to take up pathology, as is done in so many institutions, when he has not finished his course in histology, anatomy, and physiology. Likewise it is impossible for the student to begin the study of medicine or surgery before he has had any work in general pathology.

That is the trouble where pathology is taught in the third year. The student starts out with the study of the infectious fevers and reads the pathology of typhoid fever, pneumonia, etc., when at the same time he is just beginning his work in the pathologic laboratory. For that reason it has always been difficult to teach pathology. Probably the ideal way, one which the present method of continuous courses makes possible, would be to devote half of the first quarter of the third year to nothing but the teaching of pathology. Then a man has had all his preliminary work and no other work will suffer. The elementary pathology has practically all been covered in the first six weeks so that when he comes to the study of medicine he has his grounding in pathology. We have not been able to accomplish that in the institution with which I am connected. The difficulty was very marked when the first two years were moved to the University of Chicago. It became necessary to fix a place where pathology

<sup>1</sup> Read before the Association of American Medical Colleges, St. Paul, June 3, 1907.

should be taught, whether in the first two years, or in the last two years; whether to condense it by giving a course in the last half of the second year, or in the first part of the third year, or even perhaps the fourth year, giving the pathology in conjunction with the practical work. This seemed to be the best solution of the difficulty.

The teaching of pathology itself is particularly favorable from the standpoint of the student, who has spent the most of his time in the pursuit of the elementary studies and is now eager to take up something practical. We are all well aware of the eagerness with which the student goes to the clinics where he can see practical work. When he goes to the pathologic laboratory he is studying something practical; he is, therefore, eager to learn and the teacher has absolutely no trouble in occupying his attention and getting good work out of him.

As far as the preliminary work of the student is concerned, he is now ready to learn what original work is and to understand that text-books do not contain all the work known. The student is too apt to believe that a text-book contains everything. He does not appreciate how much there is outside of that. Therefore, we have endeavored, in teaching pathology, not to confine ourselves to one book, assigning a lesson of a certain number of pages, and then adhering closely to the assigned work. That is not the proper way to teach any subject. Instead of that we endeavor not to recommend a single text-book but all those that are standard works. When we assign a lesson we refer to some book where the subject is well presented. For instance, when we come to the study of thrombosis we refer to Welch and when we come to consider inflammation we refer to Allbutt, thus leading the student to see that there is something outside of the text-book.

The work in the Sophomore year is purely elementary and simply prepares the student for what is to follow. Pathology cannot be taught like some other branches. It is neither an applied science, nor an elementary science. Anatomy and physiology can be taught as pure science, and although there has been some discussion this afternoon, as to making these studies practical sciences, I am of the opinion that they are pure sciences. The first two years can be devoted to the sciences without any

reference whatever to their clinical teaching. In teaching pathology it is, of course, essential that there be laboratory work. That at present consists of laboratory work, limited in most institutions, I am sorry to say, to pathologic histology. There is nothing that is more disagreeable to the pathologist to hear than to have some one use the terms pathologic anatomy and pathology synonymously.

The advances in medicine in the past were along anatomical lines, but to-day they are along physiologic lines. At first organs were organs, and they elaborated certain known secretions. Then these same organs began to be studied as cell composite, to which we are now directing our attention. The future of pathology, and in that the future of medicine, must be along the lines of chemic research. We have a gross pathology and a microscopic pathology and now we must direct our attention to the molecule. The teaching of pathology should not be limited to the anatomical side. I am very glad that such text-books as Stengel's, make a distinct division and in the discussion of every topic refer to pathologic anatomy and pathologic physiology.

Laboratory work in pathology should consist not only of teaching the mere features of pathology, but should also teach the man to observe morbid conditions, just as he has been taught to observe normal conditions in physiology and anatomy. There is only one way in which to teach observation and that is to make him write and see. One essayist to-day has mentioned drawing as an aid in teaching anatomy. This is even more applicable in teaching pathology. Any one who has made a drawing of a specimen will agree with me that he has profited more from that than from simple observation through the microscope. It teaches concentration of thought.

I present to you herewith the books which are used by our students and which will show you how we teach pathology in our college. The advantage of didactic teaching in pathology is very much a matter of personal opinion. I was educated in a school where they teach in the old-fashioned method and where they believe in didactic work. The lectures in pathology can take up the point which the text-book does not contain and dwell on it at some length, considering it in all its phases. You can use stereopticon pictures, which are vastly superior to text-



book illustrations, and thus give the instructor a chance to bring his personal equation into play.

We make our preliminary work optional, but the student must take 240 hours of pathology. We give this option for the purpose of encouraging and stimulating the student to do research work. We assign advanced topics to such students as are inclined to do this work. This will accustom them to looking up medical literature and teach them where things can be found. Some of the best things in medicine can only be found in the literature.

After the Sophomore year the work should consist in taking a case in the clinic or at the bedside, following it through its various clinical features, if it can be done, doing all the bacteriologic work that may be necessary, and, if possible, procuring some of the diseased tissue of which the student will make sections. We allow the students to do such work under the immediate supervision of the heads of the department. We endeavor to have all the men get practical work; therefore, we offer special courses in the study of tumors, and of infectious diseases where the teaching of bacteriology comes in quite naturally.

In the pathologic laboratory we have a splendid opportunity of observing how well a man is able to apply his knowledge,—apply what he has learned in his preliminary work.

With reference to the schools that teach the first two years of medicine only, I am free to say that those are the very best men when it comes to applying their pure scientific knowledge. Pure scientific teaching is the best for the student when it is entirely divorced from practical work.

#### DISCUSSION.

Dr. A. P. Ohlmacher, Galliopolis, O.:

The hour is so late that these important remarks of Dr. Wells cannot be fully discussed. I am sorry also that I am not at present in a position where I can give much thought to the teaching of pathology, but the doctor has touched upon certain matters which I hope I shall have the pleasure of hearing him consider further. One question is in relation to the teaching of bacteriology and pathology. Another is, what technical instruction the student should have when he begins the study of pathology? What line does he consider best adapted as a preparation for laboratory work in pathology? How much bacteriology and how much pathology technique he should have before taking up laboratory work in pathology?

Dr. Wells (closing the discussion):

Unfortunately I have not sufficient time to answer Dr. Ohlmacher's question in regard to the relation between bacteriology and pathology. In some schools they are being taught separately and in others in relation to medicine. I believe all branches that can be should be made pure sciences. Bacteriology is one of them and in that study a man gets the best technical preparation. After he has taken his course in general pathology, and when he comes to working up cases, then he can apply his pathology and bacteriology to practical ends. That, I believe, is the ideal way of teaching bacteriology.

## A SIMPLE METHOD OF TEACHING HISTOLOGY BY MODELS AND OUTLINES.<sup>1</sup>

By J. S. FOOTE, M.D., Omaha, Neb.

The object of this paper is to simplify the ordinary medical course in histology by the presentation of a system of models and outlines which shall represent some particular type of structure more common to the animal body than any other. Object lessons are of great advantage to first-year students, the greater part of whose knowledge has been acquired by simple observation. The beginner who reads a text-book on this subject nearly always has more or less difficulty in finding, with the microscope, those parts which are described. He sees a picture as a whole and not in detail and is satisfied with the general survey and the act of mounting the specimen. A peculiar adaptation of the sense of vision is necessary in order to see detail structure under a microscope and a sort of nervous impatience develops after the first glance which leads to other specimens in rapid succession. During a quiz the teacher is often conscious that the student's knowledge is derived from the book as a matter of memory rather than from the specimen as a matter of comprehension. In his answer he anxiously endeavors to locate some page and some part of the page of the book and if he succeeds and gives an answer as contained in the text his countenance at once clears up with the evident satisfaction that he is right and it does not seem to occur to him that the specimen before him has much to do with what is actually going on. The result is, he soon forgets what he has learned and the subject of histology has no real place in his general fund of medical knowledge. It is a medical luxury. The relation between it and the practice of medicine is not stated in the book and therefore is not apparent. Some difficulty also arises when the teacher attempts to point out some particular part of the specimen and he never knows really whether or not he has succeeded; pointing out an object under the microscope is very much like pointing out a star in the heavens, and may or may not be successful. A plan of instruction which presents the subject-matter in the form of

<sup>1</sup> Read before the Association of American Medical Colleges, St. Paul, June 3, 1901.

object lessons, whereby the parts concerned may be seen and handled, is desirable. Now the structures of the animal body may be divided for the sake of convenience into simple and compound, the simple structures being the cells and tissues, the compound being the organs. Models of cells of the different tissues may be made, of some suitable material and painted to resemble the double stain. These cells may be put together and tissues made, and likewise tissues may be combined and organs made. In all the compound structures or organs the tube plan predominates. Nearly all the viscera are built on this plan, as, for example, the alimentary canal, respiratory, genital, urinary, secreting, and circulatory systems, so that if the student has the tube idea in his mind, he has something to start with. Having gained a knowledge of the four tissues, he may devote the rest of his time to the arrangement of these tissues in tube form so as to best perform the function of the part under consideration. Although the tube is widely distributed throughout the body, yet in structure it is much the same everywhere; the parts are usually spoken of as coats and it may have one like a blood capillary, two like a small duct, three like the trachea, or four like the alimentary canal; at any rate a one-, two-, three- or four-coated tube will cover most of the groundwork of structure. An outline of the organ considered may be written on the blackboard and then the organ built up by models according to the outline. The first or outside coat in all tubes is essentially the same, that is, a basement membrane or connective tissue; the second is usually muscular and may have one, two, or three layers; the third is the submucous and in most cases is areolar tissue containing blood vessels, nerves, lymphatics (with or without secreting glands); the fourth is the mucous with or without the muscularis mucosæ, and varies according to location. In most all cases the muscle is smooth—exceptions—upper part of respiratory apparatus and esophagus. In most all cases the submucosa does not contain secreting glands, — exceptions—respiratory tubes, esophagus, and duodenum. The mucosa is the part which varies most often and this variation locates the organ. Thus we see that the important viscera are made up of tubes, the three outside coats of which are pretty much the same everywhere; and the inside coat is the characterizing part.

This can be shown by the models, for in building up 'most any tube, the mucous coat only has to be changed. The first advantage of the tube models is that each part or coat may be demonstrated separately. Beginning with the outside, we may lay down the first or connective tissue coat, making such remarks concerning its variations as we see fit to make ; then the muscular coat giving the varieties and number of layers, and variations in thickness; then the submucous, stating in what tubes secreting glands are found; and, lastly, the mucous, presenting such explanations as the part demands. In this manner a plan is revealed which makes the tube a reasonable structure. It may be built up and taken to pieces many times, or until the student understands it thoroughly. The very process of construction by the addition of one part after another establishes a system of parts which belongs to a united whole. The student may take the models and construct an organ himself, and what he builds he remembers. It is not so much the accuracy of detail shown by the models as the plan of structure.

The detail work is done with the microscope. In many instances when I have asked the structure of an organ, as the duodenum, the student throws together in his reply a mass of tissues without regard to form or arrangement; that is, he would say the duodenum is composed of connective tissue, epithelium, villi, crypts, secreting glands and muscles, showing that he knew really nothing about the organ as an organ, but had a vague idea of a number of things which ought to enter into the composition of almost anything; as long as his memory held out he repeated words which he had seen somewhere and when he came to the end of the words remembered, he came to the end of his structure. A second advantage is that a good deal of ground may be covered in a short time. The entire tube structure of any system may be shown in a few minutes. The alimentary canal may be shown to be a four-coated tube having, in the cardiac stomach three layers of muscle, and in the pyloric a thick circular muscle; in the esophagus, upper part striped voluntary, lower part smooth; having in the esophagus and duodenum secreting glands in the submucous coat; in the ilium, Peyer's patches; in the whole intestine, solitary glands; and having in the mucous membrane, the stratified pavement epithelium of the

esophagus; the compound tubular glands with short necks, long bodies—chief and parietal cells of the cardiac stomach; the compound glands with long necks, short bodies—chief cells of the pyloric stomach; the villi and crypts of the small intestine; the crypts of the large intestine; the lymphoid tissue and incomplete crypts of the appendix—and the whole canal becomes a unit of structure which makes an impression upon the mind which can be recalled without much effort.

A third advantage is that a number of small toy sets of models can be made of cardboard and printed to resemble the large ones, and sold or loaned to students during laboratory hours; with these they can build up the important organs. Having once actually constructed them, they would have a more intelligent idea of a day's work in histology than could be derived from the majority of text-books. It is somewhat remarkable that the majority of text-books do not have plates of complete structures, but only of parts. The mucous membrane is pictured while the remainder of the structure is merely described. The wall of the esophagus is usually pictured entirely.

A fourth advantage is that the models are inexpensive in comparison with projection apparatus. I have used the models in teaching for two or three years, and believe that they have the advantages above spoken of. The plan followed is this:

*First*—Outline of the organ—word picture.

*Second*—Construction of the organ with models—model picture.

*Third*—Study of the section with the microscope—real picture.

**ASSOCIATION OF AMERICAN MEDICAL COLLEGES.**  
**MINUTES OF THE ELEVENTH ANNUAL MEETING, HELD AT ST.**  
**PAUL, JUNE 3, 1901.**

**AFTERNOON SESSION.**

The Association convened in Parlor A, Ryan Hotel, and was called to order at 2 P.M., by the president, Dr. Albert R. Baker, Cleveland.

The following delegates and guests were present :

|                             |           |                                                   |
|-----------------------------|-----------|---------------------------------------------------|
| Bailey, Wm.,                | Visitor,  | Mem. Kentucky State Board of Health.              |
| Bentley, Edwin,             | Delegate, | Med. Dep't, Arkansas Univ.                        |
| Bodine, J. M.,              | "         | Univ. of Louisville, Med. Dep't.                  |
| Brown, H. H., Pres.,        | "         | Illinois Med. Coll.                               |
| Bryant, D. C., Dean,        | "         | Creighton Med. Coll.                              |
| Caglieri, Guido E.,         | Visitor,  | San Francisco.                                    |
| Carr, W. P.,                | "         | Columbian Univ. Med. Coll.                        |
| Clanahan, H. M. M., Treas., | Delegate, | Omaha Med. Coll.                                  |
| Conley, A. T.,              | Visitor,  | Cannon Falls, Minn.                               |
| Cook, Joseph E.,            | "         | Cleveland, Ohio.                                  |
| Danielson, Chas.,           | "         |                                                   |
| Dannaker, C. A.,            | Delegate, | Medico-Chirurgical Coll., Kansas City,<br>Mo.     |
| Dodson, John M., Dean,      | "         | Rush Med. Coll.                                   |
| Earles, W. H., Dean,        | "         | Milwaukee Med. Coll.                              |
| Egbert, Seneca, Dean,       | "         | Medico-Chirurgical Coll. of Philadel-<br>phia.    |
| Ellis, W. Bert,             | "         | Coll. of Med. Univ. of South California.          |
| Eve, Paul F., Dean,         | Visitor,  | Med. Dep't, Univ. of Tennessee.                   |
| Fitzpatrick, T. V., Dean,   | Delegate, | Cincinnati Coll. of Med. and Surg.                |
| Frank, Louis,               | "         | Kentucky Univ., Med. Dep't.                       |
| Friedenwald, Harry,         | "         | Coll. P. and S.                                   |
| Gelletin, Wm. J., Sec.,     | "         | Toledo Med. Coll.                                 |
| Grout, H. H.,               | "         | Hospital College, Louisville, Ky.                 |
| Hall, C. Lester,            | Visitor,  | Medico-Chirurgical Coll., Kansas City,<br>Mo.     |
| Hall, Winfield S.,          | Delegate, | Chicago Med. Coll. (N. W. Univ. Med.<br>School).  |
| Hamann, C. A.,              | "         | Med. Coll. Western Reserve Univ.                  |
| Harlan, Herbert,            | "         | Woman's Med. Coll. of Baltimore.                  |
| Holland, Jas. W., Dean,     | "         | Jefferson Med. Coll.                              |
| Hubbard, G. W., Dean,       | "         | Meharry Med. Coll. of Walden Univ.,<br>Nashville. |

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|--------------------------------------|-----------|-----------------------------------------------|
| Humiston, Wm. H.,                    | Visitor,  | Med. Dep't of Western Reserve Univ.           |
| Ingals, E. Fletcher,                 | "         | Rush. Med. Coll.                              |
| James, Sam. C., Dean,                | "         | Univ. Med. Coll., Kansas City, Mo.            |
| Jenkins, Geo. F., Pres.,             | Delegate, | Keokuk Med. Coll. P. and S.                   |
| Johnston, Geo. B.,                   | Visitor,  | Med. Coll. of Virginia.                       |
| Kober, Geo. M., Dean,                | Delegate, | Med. School, Georgetown Univ.                 |
| La Force, W. B.,                     | Visitor,  | Keokuk Med. Coll.                             |
| Lee, Thomas G.,                      | "         | Univ. of Minnesota.                           |
| Lester, Chas. H.,                    | "         | Kansas City Med. Coll.                        |
| Levings, A. H., Pres.,               | Delegate, | Wisconsin Coll. of P. and S.                  |
| Levy, Robert, Sec.,                  | "         | Gross Med. Coll.                              |
| Lillie, C. W., Sec.,                 | "         | St. Louis Coll. P. and S.                     |
| Logan, Jas. E., Pres.,               | "         | Univ. Med. Coll., Kansas City, Mo.            |
| Loope, J. S.,                        | Visitor,  | Creighton Med. Coll.                          |
| Magee, R. S., Sec.,                  | Delegate, | Kansas Med. Coll. Topeka,                     |
| McCone, James F.,                    | "         | Univ. of California.                          |
| Means, W. J., Registrar,             | "         | Ohio Med. Univ.                               |
| Middleton, Wm. D., Dean,             | "         | Coll. of Med., Iowa State Univ.               |
| Murphy, Franklin E.,                 | "         | Kansas City Med. Coll.                        |
| Priestley, James Taggart,            | "         | Iowa Coll. P. and S., Med. Dep't, Drake Univ. |
| Reynolds, Dudley S.,                 | Visitor,  | Chairman Judicial Council. Associate Member.  |
| Ritchie, Parks, Dean,                | Delegate, | Univ. of Minnesota.                           |
| Roberts, W. O.,                      | Visitor,  | Univ. of Louisville, Ky.                      |
| Rodman, Wm. L.,                      | Delegate, | Woman's Med. Coll. of Penn.                   |
| de Schweinitz, E. A., Dean,          | "         | Columbian Univ. Med. School.                  |
| Taylor, P. Richard,                  | "         | Hospital College.                             |
| Tiffany, F. B.,                      | Visitor,  | Univ. Med. Coll. of Kansas City, Mo.          |
| Tompkins, Chris., <sup>1</sup> Dean, | "         | Med. Coll. of Richmond, Va.                   |
| Vaughan, Geo. Tully,                 | "         | Georgetown Univ., Washington, D. C.           |
| Vaughan, Victor C.,                  | Delegate, | Dep't of Med. and Surg. of the Univ. of Mich. |
| Vaughan, Mrs. V. C.,                 | Visitor.  |                                               |
| Walker, H. O.,                       | Delegate, | Detroit Coll. of Med.                         |
| Warren, J. N.,                       | "         | Sioux City Coll. of Med.                      |
| Wathen, Wm. H., Dean,                | "         | Kentucky School of Med.                       |
| Wells, H. Gideon,                    | Visitor,  | Rush. Med. Coll.                              |
| Wenning, Wm. H.,                     | Delegate, | Cincinnati Coll. of Med. and Surg.            |
| Whitehead, R. H., Dean,              | "         | Med. Dep't, Univ. of North Carolina.          |
| Williston, S. W., Dean,              | "         | Univ. of Kansas, Med. School.                 |
| Winslow, Randolph,                   | "         | Univ. of Maryland.                            |
| Wyman, H. C.,                        | "         | Mich. Coll. of Med. and Surg.                 |

<sup>1</sup> Secretary of the Association of Southern Medical Colleges.



Dr. Parks H. Ritchie, dean of the Medical Department of the University of Minnesota, was then introduced and, on behalf of the University of the State of Minnesota and the city of St. Paul, bid the Association welcome in a few well-chosen words.

The first vice-president, Dr. Wm. H. Earles, then took the chair, while the president, Dr. Baker, delivered the presidential address.

Dr. Wm. L. Rodman, moved that a committee be appointed to consider the recommendations made by the president in his address and report at the evening session. Carried.

The chair appointed, on this committee, Drs. Wm. L. Rodman, P. Richard Taylor, R. S. Magee, Victor C. Vaughan, and D. C. Bryant. Dr. Rodman declaring his inability to serve, Dr. J. W. Holland was appointed in his stead.

Dr. Victor C. Vaughan, Ann Arbor, Mich., read a paper on "What Preliminary Education Best Fits a Man For the Study of Medicine?" Discussed by Drs. W. S. Hall, Chicago; J. M. Dodson, Chicago; L. J. Nolte, Milwaukee; and in closing by Dr. Vaughan.

Dr. C. A. Hamann, Cleveland, Ohio, read a paper on "Teaching Anatomy in Medical Schools." Discussed by Drs. H. C. Wyman, Detroit; and Wm. L. Rodman, Philadelphia.

Dr. R. H. Whitehead, dean of the University of North Carolina, read the following paper: "The Colleges That Do Not Give Medical Degrees." Discussed by Drs. J. W. Williston, Lawrence, Kansas; Seneca Egbert, Philadelphia; J. E. Logan, Kansas City; J. M. Dodson, Chicago; W. P. Carr, Washington; W. H. Wathen, Louisville; D. C. Bryant, Missouri; J. W. Williston, Lawrence, Kansas; Victor C. Vaughan, Ann Arbor; W. J. Means, Columbus; and in closing by Dr. Whitehead.

"On the Importance and Method of Keeping Accurate Records of Students' Work and Issuing Specific Credits," was the title of a paper read by Dr. John M. Dodson, Chicago.

Dr. Dodson submitted the following resolution:

*Resolved*, That a committee of three be appointed by the chair to consider the matter of students' records and credits, and to report at the next annual meeting. Such committee should: (1) Secure information from the colleges represented in the Association, as to the methods now in use; (2) investigate the methods in vogue in a few of the leading literary colleges and universities; (3) consider the possibility of securing some degree of uniform-

ity among the various medical colleges; and (4) outline a general scheme for students' records and credit slips, which may be utilized by any college, with such modifications as the local conditions of the institution require.

On motion of Dr. W. H. Wathen the resolution was concurred in and the chair appointed, on this committee, Drs. R. H. Whitehead, W. S. Hall, and R. O. Beard with instructions to report at the next annual meeting.

Dr. Dodson's paper was discussed by Drs. Wm. H. Wathen, Louis Frank, J. W. Holland, and in closing by the essayist.

In the absence of Dr. Ludwig Hektoen, a paper on "Education in Hospital and Laboratory" was read by Dr. H. Gideon Wells, Chicago. Discussed by Dr. A. P. Ohlmacher.

Dr. J. S. Foote read a paper on "Simple Methods of Teaching Histology."

Dr. Wathen moved that the chair appoint a committee of three to confer with the southern medical colleges with the view of inducing them to join this Association. Carried.

The chair appointed Drs. J. M. Matthews, Randolph Winslow, and Seneca Egbert.

Pursuant to a motion the chair appointed the Nominating Committee: Drs. Parks H. Ritchie, J. W. Holland, and Wm. H. Wathen.

On motion, the Association adjourned until 8 P.M.

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The Association reassembled at 8 P.M., and was called to order by the president. Of the fifty-six colleges entitled to vote, thirty-seven were represented and responded to the roll-call of members.

Dr. Randolph Winslow moved that the visitors from the Southern Medical College Association be given the privilege of the floor. Seconded and carried.

The reading of the minutes of the previous meeting being called for, the secretary offered the minutes as printed in the transactions, a copy of which was sent to every member of the Association.

Dr. J. M. Bodine offered the following correction: On page 242, it reads: "motion amended by Dr. Bodine, etc.," which was not the case. And on page 245, "Dr. Bodine moved that amendment by Dr. Ingals be considered by body as a whole," is incor-

rect. Some one moved to adopt report as a whole, and Dr. Bodine amended that motion by insisting on a roll-call.

Dr. De Schweinitz said that the minutes did not show that the protest made by him was presented before the Association.

On motion, the minutes were adopted as read and amended.

Dr. J. W. Holland, chairman of the Committee on Relations of this Association to the National Confederation of State Examining and Licensing Boards, presented the following report :

"Your committee, appointed to confer with a similar Committee of the National Confederation of State Examining and Licensing Boards as to the advisability of a minimum standard of requirements acceptable to both bodies, report that a meeting was held this day, at which it seemed the sense of the majority that the two bodies had no common ground for action."

On motion, the report was accepted and the committee discharged.

Dr. John M. Dodson presented the report of the Committee on Amendments to the Constitution, which, on motion, was read by the secretary as a whole.

Moved by Dr. Winslow that the proposed constitution, as amended, be laid on the table. Seconded and carried. Of the thirty-seven members present, twenty voted for, and thirteen against, the motion, four not voting.

Dr. Wathen, moved that the amendment to Article III, of the constitution, as offered by Dr. Dudley S. Reynolds, Louisville, be offered as an amendment to the constitution at the next annual session. No second.

Dr. R. H. Whitehead withdrew the amendment offered by the Medical Department of the University of North Carolina.

Dr. Winslow reported that the Committee on Relations with Southern Medical College Association had interviewed representatives of this Association present at this meeting and had invited them, as well as all other members of that Association, to unite with this body.

Dr. H. O. Walker moved that the report be accepted and that this Association invite the Southern Colleges to unite with us. Seconded by Dr. Bodine and carried unanimously.

The Judicial Council, through its chairman, Dr. Dudley S. Reynolds, reported as follows :

The Kansas Medical College of Topeka, it may be remembered, was sub-

jected at the last meeting of the Association, to a vote of censure. It comes now, through the officers of its faculty, and announces that it had no graduating class for 1901, and that it is honestly and faithfully endeavoring to observe in the most rigid manner, all the requirements of this Association, wherefore, the Council respectfully suggests that the disability be removed, and that the Kansas Medical College be restored to full membership in good standing.

The University Medical College, of Kansas City, Mo., having been suspended from membership at the last annual meeting of the Association, comes now with an avowal by the officers of its faculty, that it is observing all the rules and requirements, and it is the judgment of the Council that the disability should be removed, and that the said University Medical College of Kansas City, Mo., be restored to full membership in good standing.

On the 28th of March, 1901, the Medical Department of Kentucky University, at Louisville, charged the Hospital College of Medicine, Medical Department of the Central University of Kentucky, with having graduated James Vance, of Kentucky, in June, 1899; Elliott Arewine, of Ohio, in June, 1900; George H. Weber, of Illinois, in June, 1900; Michael Caspar, of Indiana, in June, 1900; E. W. Davidson, of North Carolina, in June, 1900; W. S. Smith, of Kentucky, in June, 1900; Henry B. Tileston, of Kentucky, in June, 1900; and Wm. E. Grant, of Kentucky, in June, 1900, in violation of its own published requirements as set forth on page 18 of its annual announcement for 1900, and page 20 of its annual announcement for 1901, all in violation of the rules and requirements of the Association of American Medical Colleges, of which it is a member.

It is charged that the James Vance, aforesaid, was graduated on three courses only; that the Elliott Arwine had never passed the required preliminary examination, and that he attended the Hospital College of Medicine for three months only, and that he had never passed any intermediate examinations in the schools which he had previously attended, and that said Arewine had been refused admission to the Senior class in Kentucky University. The George H. Weber, of Illinois, aforesaid, matriculated in the Hospital College of Medicine on or about June 25, 1900, and was graduated on June 27th, two days after matriculation. That he never attended any lectures or other exercises in the Hospital College of Medicine, and was not examined for the degree in that institution; and that said Weber was solicited to accept the college diploma by the dean, for which he paid the sum of five dollars (\$5.00) only.

The aforesaid Michael Caspar, of Indiana, matriculated in the Hospital College of Medicine in June, 1900, and graduated from that institution on June 27, 1900, without having attended any of the lectures or other exercises in the Hospital College of Medicine, and that he was required to pass no examination whatever. The aforesaid E. W. Davidson, of North Carolina, attended no lectures or other exercises in the Hospital College of Medicine, was not examined, and had not attended but three courses of instruction.

The W. S. Smith, of Kentucky, the H. B. Tileston, of Kentucky, and the W. E. Grant, of Kentucky, heretofore mentioned, matriculated in the Hos-

pital College of Medicine on June 22, 1900, and graduated on June 27, 1900, the three last named being dentists and therefore entitled to but one year of advanced standing, according to the requirements of the College Association.

After due investigation of the evidence submitted in support of the charges and of the answer of the defendant in each case, the chairman of the Council taking no part, expressing no opinion, and casting no vote, the other members of the Council unanimously sustain the charges.

(Signed)

PARKS RITCHIE,  
JOHN M. DODSON,  
RANDOLPH WINSLOW,  
VICTOR C. VAUGHAN,  
WM. W. KEEN.

A great variety of other matters which have been adjudicated during the year in accordance with previous decisions of the Council, all of which having been heretofore approved by unanimous vote of the Association, the Council now submits without reading.

The recommendation regarding the Kansas Medical College was adopted upon motion of Dr. H. O. Walker.

The ruling on the University Medical College of Kansas City was accepted.

In the matter of the Medical Department of the Kentucky University at Louisville, Dr. Reynolds stated that he had refrained from voting on the matter, as the college was situated in his own city.

Dr. P. Richard Taylor, dean of the Hospital College of Medicine, explained the case to the Association, refuting the charges made by the University Medical College of Louisville, whereupon Dr. Wathen moved that "while we recognize the correctness of the Judicial Council's report, we exonerate the Hospital College of Medicine with the assurance on their part that they will not repeat the offenses with which they have been charged." The motion was seconded by Dr. Louis Frank and unanimously carried.

Dr. Taylor expressed his thanks on behalf of the Hospital College of Medicine, for the leniency of the Association.

The report of the secretary was presented by Dr. Holmes, and was adopted on motion of Dr. H. H. Brown.

Dr. Seneca Egbert moved "that the Secretary have printed the Constitution and By-Laws as they stand at the present time and send a copy to each member of the Association." Seconded and lost.

Dr. J. M. Bodine offered the following resolution :

*Resolved*, That no college, a member of this Association, shall be permitted to accord to any one any beneficiary scholarship, except as provided for in the endowment funds of said college. The facts in regard to such a scholarship shall be fully set forth in the annual announcement of the college offering it.

Carried unanimously.

Dr. W. J. Means offered the following :

*Resolved*, That students carrying a condition or conditions, cannot enter another college, a member of the Association, until said condition or conditions are removed by the college giving them, or unless said college gives her consent for another college to do so.

Lost.

The Committee on President's Address reported as follows :

" Your Committee reports in favor of the hearty approval by this body of the general spirit of the paper and recommends that it be published in the BULLETIN OF THE AMERICAN ACADEMY OF MEDICINE. The Committee further recommends that the various suggestions made in it be favorably dealt with at the proper time." (Signed)

J. W. HOLLAND,  
D. C. BRYANT,  
R. S. MAGEE,  
P. RICHARD TAYLOR,  
V. C. VAUGHAN.

Dr. Jenkins moved that the Judicial Council be empowered to act on the applications of those colleges who have applied for membership and filed credentials. Amended by Dr. Frank that the Judicial Council report to the secretary before the publication of the transactions.

The amendment and the motion as amended were unanimously carried.

The report of the Nominating Committee was then read, as follows :

*President*—Victor C. Vaughan, Ann Arbor, Mich.

*First Vice-president*—Wm. L. Rodman, Philadelphia, Pa.

*Second Vice-president*—H. Burt Ellis, Los Angeles, Cal.

*Secretary*—W. S. Hall, Chicago, Ill.

*Judicial Council*—Thos. Hawkins, Denver, Colo., term expires 1903 ; E. C. Dudley, Chicago, Ill., term expires 1904 ; W. J. Means, Columbus, Ohio, term expires 1904.

On motion of Dr. W. A. Evans, the name of Dr. Bayard

Holmes was substituted as secretary. Carried unanimously.

On motion, the report was adopted as amended, and the secretary instructed to cast the ballot, which he did.

There being no further business to come before the meeting, the Association, on motion, adjourned.

ALBERT R. BAKER,  
*President.*

BAYARD HOLMES,  
*Secretary.*

The following members have paid their dues for the present year :

|                                             |                     |
|---------------------------------------------|---------------------|
| Arkansas Industrial University, Med. Dep't, | Little Rock, Ark.   |
| University of California, Med. Dep't,       | San Francisco, Cal. |
| Gross Med. Coll.,                           | Denver, Colo.       |
| University of Colorado, Med. School,        | Boulder, Colo.      |
| University of Denver, Med. Dep't,           | Denver, Colo.       |
| Yale University,                            | New Haven, Conn.    |
| Columbian Univ., Med. Dep't,                | Washington, D. C.   |
| Georgetown Univ., Med. Dep't,               | Washington, D. C.   |
| Howard Univ., Med. Dep't,                   | Washington, D. C.   |
| National Univ., Med. Dep't,                 | Washington, D. C.   |
| College of P. and S.,                       | Chicago, Ill.       |
| Illinois Med. Coll.,                        | Chicago, Ill.       |
| Northwestern Univ. Med. School,             | Chicago, Ill.       |
| Northwestern Univ. Woman's Med. Coll.,      | Chicago, Ill.       |
| Rush Med. Coll.,                            | Chicago, Ill.       |
| Fort Wayne Coll. of Med., Taylor Univ.,     | Fort Wayne, Ind.    |
| Med. Coll. of Indiana,                      | Indianapolis, Ind.  |
| State Univ. of Iowa, Med. Dep't,            | Iowa City, Iowa.    |
| Keokuk Med. Coll.,                          | Keokuk, Iowa.       |
| Sioux City Coll. of Med.,                   | Sioux City, Iowa.   |
| Kansas Med. Coll.,                          | Topeka, Kans.       |
| Hospital Coll. of Med.,                     | Louisville, Ky.     |
| Kentucky School of Med.,                    | Louisville, Ky.     |
| Univ. of Louisville, Med. Dep't,            | Louisville, Ky.     |
| New Orleans Univ. Med. School,              | New Orleans, La.    |
| Baltimore Med. Coll.,                       | Baltimore, Md.      |
| Baltimore Univ. School of Med.,             | Baltimore, Md.      |
| Coll. of P. and S.,                         | Baltimore, Md.      |
| Johns Hopkins Med. School,                  | Baltimore, Md.      |
| Kentucky Univ., Med. Dep't,                 | Louisville, Ky.     |
| Univ. of Kansas,                            | Lawrence, Kansas.   |
| Univ. of Maryland, School of Med.,          | Baltimore, Md.      |
| Woman's Med. Coll. of Baltimore,            | Baltimore, Md.      |
| Coll. of P. and S.,                         | Boston, Mass.       |
| Univ. of Mich., Dep't of Med. and Surg.,    | Ann Arbor, Mich.    |
| Detroit Coll. of Med.,                      | Detroit, Mich.      |

|                                                |                    |
|------------------------------------------------|--------------------|
| Mich. Coll. of Med. and Surg.,                 | Detroit, Mich.     |
| Minneapolis Coll. of P. and S., Hamline Univ., | Minneapolis, Minn. |
| Univ. of Minn., Coll. of Med. and Surg.,       | Minneapolis, Minn. |
| Kansas City Med. Coll.,                        | Kansas City, Mo.   |
| Univ. Med. Coll. of Kansas City,               | Kansas City, Mo.   |
| Barnes' Med. Coll.,                            | St. Louis, Mo.     |
| St. Louis Coll. of P. and S.,                  | St. Louis, Mo.     |
| John A. Creighton Med. Coll.,                  | Omaha, Neb.        |
| Omaha Med. Coll.,                              | Omaha, Neb.        |
| Univ. of Buffalo, Med. Dep't,                  | Buffalo, N. Y.     |
| Syracuse Univ., Coll. of Med.,                 | Syracuse, N. Y.    |
| Univ. of North Carolina, Med. Dep't,           | Chapel Hill, N.C.  |
| Cincinnati Coll. of Med. and Surg.,            | Cincinnati, Ohio.  |
| Medical College of Ohio,                       | Cincinnati, Ohio.  |
| Miami Med. Coll. of Cincinnati,                | Cincinnati, Ohio.  |
| Western Reserve Univ., Med. Dep't,             | Cleveland, Ohio.   |
| Cleveland Coll. of P. and S.,                  | Cleveland, Ohio.   |
| Ohio Med. Univ.,                               | Columbus, Ohio.    |
| Starling Med. Coll.,                           | Columbus, Ohio.    |
| Toledo Med. Coll.,                             | Toledo, Ohio.      |
| Willamette Univ., Med. Dep't,                  | Salem, Oregon.     |
| Jefferson Med. Coll. of Philadelphia,          | Philadelphia, Pa.  |
| Medico-Chirurgical Coll. of Philadelphia,      | Philadelphia, Pa.  |
| Woman's Med. Coll. of Pennsylvania,            | Philadelphia, Pa.  |
| Western Pennsylvania Med. Coll.,               | Pittsburg, Pa.     |
| Meharry Med. Coll., Walden Univ.,              | Nashville, Tenn.   |
| Milwaukee Med. Coll.,                          | Milwaukee, Wis.    |
| Wisconsin Coll. of P. and S.,                  | Milwaukee, Wis.    |



# CONSTITUTION OF THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

## ARTICLE I.

This organization shall be known as the Association of American Medical Colleges.

## ARTICLE II.

SECTION 1.—Any medical college conforming to the requirements of the Association, as expressed in this constitution and in the by-laws of the Association, is eligible to *membership*.

SEC. 2.—Any medical college desiring membership in this Association shall make *application* to the secretary and pay the annual dues of five dollars. This application shall be accompanied by evidence that the college applying is conforming to the requirements of this Association. The application and all evidence and information in relation to the college applying shall then be put into the hands of the Judicial Council, to be reported to the Association favorably or unfavorably, at the annual meeting, at which time the college shall be elected to membership if it receives the favorable recommendation of the Judicial Council and the favorable ballot of a majority of the colleges represented in the meeting. The neglect of the Judicial Council to report on the application of a college shall not be a bar to election.

SEC. 3.—Each college is entitled to one *representative* at all meetings of the Association, and to one vote on all questions. The dean of the college will be its accredited representative in the absence of any other delegate.

SEC. 4.—The dues are five dollars a year, payable in advance.

## ARTICLE III.

SEC. 1.—Each college holding membership in this Association shall require of each student, *before admission* to its course of study, an examination, the minimum of which shall be as follows :

1.—In *English*, a composition on some subject of general interest. This composition must be written by the student at the time of the examination, and should contain at least 200 words. It should be criticized in relation to thought, construction, punctuation, spelling, and handwriting.

2.—In *Arithmetic*, such questions as will show a thorough knowledge of common and decimal fractions, compound numbers, and ratio and proportion.

3.—In *Algebra*, such questions as will bring out the student's knowledge of the fundamental operations, factoring, and simple quadratic equations.

4.—In *Physics*, such questions as will discover the student's understanding of the elements of mechanics, hydrostatics, hydraulics, optics, and acoustics.

5.—In *Latin*, an examination upon such elementary work as the student may offer, showing a familiarity usually attained by one year of study ; for example, the reading of the first 15 chapters of Cæsar's Commentaries,

and the translation into Latin of easy English sentences involving the same vocabulary.

SEC. 2.—In place of this examination, or any part of it, colleges, members of this Association, are at liberty to recognize the official *certificates of reputable* literary and scientific colleges, academies, high schools, and normal schools, and also the medical student's certificate issued by any state examining board covering the work of the foregoing entrance examination.

SEC. 3.—Colleges, members of this Association, may allow students *who fail in one or more branches* in this entrance examination the privilege of entering the first-year course, but such students shall not be allowed to begin the second course until the entrance requirements are satisfied.

SEC. 4.—Colleges, members of this Association, are free to honor official *credentials issued by medical colleges of equal requirements*, except in the branches of study embraced in the last year of their own curriculum.

SEC. 5.—Candidates for the degree of Doctor of Medicine in the year 1899 and thereafter shall have attended at least *four courses* of medical instruction, each course of at least six months' duration, no two courses of which shall have been in the same calendar year.

SEC. 6.—Colleges, members of this Association, are free to give to students who have met the entrance requirements of the Association additional *credit for time* on the four years' course as follows: (a) To students having the A.B., B.S., or equivalent *degree* from reputable literary colleges, one year of time; (b) To graduates and students of colleges, of *homeopathic or eclectic* medicine, as many years as they attended those colleges, provided they have met the previous requirements of the Association and that they pass an examination in materia medica and therapeutics; (c) To graduates of reputable colleges of *dentistry, pharmacy, and veterinary* medicine, one year of time.

SEC. 7.—A college not giving the whole four courses of the medical curriculum, and not graduating students, but otherwise eligible, may be admitted to membership.

#### ARTICLE IV.

SEC. 1.—In addition to the representatives of colleges in attendance at regular meetings, who are termed *active members*, there shall also be associate members and honorary members. *Associate members* shall consist of former representatives and representatives of post-graduate medical schools and members of state boards of medical examiners. Distinguished teachers in medicine and surgery may be elected to *honorary membership*.

SEC. 2.—Only duly delegated and accredited active members in actual attendance whose annual dues are paid shall have *voting power*, but associate and honorary members may participate in all other proceedings and duties and may be elected to any office.

#### ARTICLE V.

SEC. 1.—The *officers* of this Association shall be a President, Senior and

Junior Vice-presidents, Secretary and Treasurer, and a Judicial Council of seven members, all of whom shall be elected annually by ballot and serve until the election of their successor.

SEC. 2.—The *President*, or one of the vice-presidents in the absence of the president, shall preside at all the meetings, and perform such duties as parliamentary usage in deliberative assemblies and the by-laws of this association may require. The seven members constituting the *Judicial Council* shall serve three years each. Vacancies by expiration of term shall be filled at the annual election of officers. Vacancies by death or resignation shall be temporarily filled by the surviving members of the Judicial Council.

SEC. 3.—The *Secretary* and *Treasurer* shall record the proceedings of the meetings, conduct the correspondence, receive dues and assessments from members, disburse the funds of the Association as provided by resolution, issue certificates of membership, and perform such other duties as the by-laws may require.

SEC. 4.—The *Judicial Council* shall investigate and determine all questions of violation of the rules and regulations of this Association, and all matters of dispute between the members of this Association. All charges or complaints shall be preferred formally in writing, and referred to the council. The council shall make written report at the next ensuing session of the Association upon all matters received for adjudication.

#### ARTICLE VI.

SEC. 1.—The stated *meetings* of this Association shall occur annually on the Monday preceding the Tuesday on which the American Medical Association convenes.

SEC. 2.—A majority of the active members whose dues are paid shall constitute a quorum.

#### ARTICLE VII.

This constitution shall not be altered or amended, except by written notice to all members at least 30 days previous to a stated meeting, and by a vote of two-thirds of all the active members present at such meeting.

### BY-LAWS.

SECTION 1.—The presiding officer shall, on calling meetings to order, call for the reading of the minutes of the previous session, which, when approved, shall be recorded in a book kept for that purpose, signed officially by the secretary and approved by the president.

SEC. 2.—After approval of the minutes, the secretary shall announce the colleges represented at the meeting, and an adjournment of ten minutes shall then follow to allow other representatives present to register and pay their dues.

SEC. 3.—Order of business :

1. The reading of the minutes of the previous meeting.
2. Roll-call of membership.
3. Reports of committees.

4. Secretary and treasurer's report.
5. Report of Judicial Council.
6. Papers and essays.
7. New business.
8. Adjournment.

SEC. 4.—These by-laws may be altered or amended at any time by unanimous consent of the members present, or by written proposition, to so alter or amend, being read in open session and receiving the approval of a three-fourths vote of all the members present at an adjourned session of any stated meeting ; provided, however, not more than twenty-four hours shall have elapsed between the time of the proposition to amend and the final vote thereon.

SEC. 5.—That no college, a member of this Association, shall be permitted to accord to any one any beneficiary scholarship, except as provided for in the endowment funds of said college. The facts in regard to such a scholarship shall be fully set forth in the annual announcement of the college offering it.—(Adopted June 3, 1901.)

## **RULES OF THE JUDICIAL COUNCIL.**

I. All complaints charges, and other questions must be submitted in writing, through the secretary of the Association, or directly through the chairman of the council.

II. All complaints of violations of rules and regulations must be in the form of written charges and specifications, signed by the complainant.

III. All charges and specifications must be presented to the accused for answer. In all cases the written answer must be filed with the chairman of the council within 10 days from the receipt of the copy of charges by the accused.

IV. All counter charges must be submitted to the accused for answer, and pleadings in the same manner as the original charges, and the council will take no notice of any evidence not submitted through its chairman in regular form and order.

V. As the strictest formality is necessary to insure justice equally, all decisions of the council must be rendered in writing, signed by each member taking part in the determination of any question.

VI. In the intervals between the annual meetings, the council may act upon all matters submitted in due form by its chairman, each member communicating his decision to the chairman who shall immediately, or within 10 days from the date of any decision, file a certified copy with the secretary, and notify all the parties interested.

VII. It will be the duty of the chairman of the council to file and preserve all original complaints, charges, and other matter referred to the council, and to deliver them to the secretary on the first day of each annual meeting next ensuing the date of final decision.

## SECRETARY'S TABLE.

This number contains the transactions of the Association of American Medical Colleges. This Association is yearly growing in power, as state after state is recognizing its standard in their medical practice acts. There were some regrets expressed at St. Paul, because the proposed amendments strengthening the course leading to the medical doctorate were not adopted. But with this new responsibility thrust upon the Association, it is, perhaps, just as well notwithstanding our ardent desire to require a course second to none in all our medical schools. The advance must be a normal growth, wherein the capacity for growth of the weaklings must be considered. While a consolidation of many of our colleges is desirable, and the adoption of the code of honor of the Japanese gentleman of the Old School, even to the extent of *Hari-kari*, on the part of some of our medical schools, would add more to their glory than any possible prospect in their living could bring, still these conditions must not be hastened by the exercise of arbitrary power through the legislation of a society. To attain the desirable by waiting is sometimes true state-craft; and the iron-hand that is clad in velvet, will usually effect the greater reforms.

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Every judicial decision which defines and confirms the power of state boards of medical examiners, is helpful in sustaining the present approved methods of medical licensure. Hence a recent decision in the Ohio Supreme Court has more than a local interest. The case is called :

STATE OF OHIO EX REL. HYGEA MEDICAL COLLEGE V. COLEMAN ET AL.,  
AS THE OHIO STATE BOARD OF MEDICAL REGISTRATION AND EXAMINATIONS.

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*Writ of mandamus—Will not issue to compel State Registration Medical Board—To recognize college as medical institution in good standing—Nor compel board to issue certificates to holders of diplomas.*

The writ of mandamus will not issue, on the relation of a medical college, to compel the state board of medical registration and examination to recognize the college as a medical institution in good standing, nor to compel

the board to issue certificates to practise medicine in this state, to holders of diplomas from such college.

(Decided March 26, 1901.)<sup>1</sup>

The Ohio board refused to accept the diplomas of the Hygea Medical College, although legally incorporated by the State of Ohio, as from a "legally chartered medical institution in good standing as determined by the board." And this suit is brought to compel it to do so. The judge in rendering his decision quotes the petition of the college, notes the fact that the board filed a general demurrer to the petition, and gives the following opinion :

The two specific acts, performance of which the court is asked to require of the board of medical examinations, are (1) the recognition, by the board, of the relator as a legally chartered medical institution in good standing, and (2) the issuance of certificates to practise medicine to holders of diplomas from the relator, who may hereafter make application to the board for that purpose.

One of the grounds upon which this relief is sought is, that the provision of section 4403c, of the Revised Statutes, as amended February 27, 1896 (92 O. L., 44-5), which confers on the state board the power to determine whether a diploma, presented for its action, is one issued by a legally chartered medical institution "in good standing," and, if determined not to be so, to refuse to the holder of the diploma, a certificate to practise medicine, is in conflict with Section 28 of article 2 of the constitution of this state, and of section 10 of article 1 of the federal constitution, being, it is claimed, retroactive in its operation, and in impairment of the obligation of contracts; and also in conflict with the fourteenth article of amendment to the federal constitution, in that it denies to parties due process of law. It would seem to be a sufficient answer to this ground of complaint that, if the statutory provision which confers on the state board the power to determine whether a medical institution whose diploma is presented for its action is void, as alleged, because repugnant to so many constitutional inhibitions, it would be highly improper for the court to compel the board to exercise that power by recognizing the relator as a medical institution of the character required by the statutes. However, it was held in *France v. State*, 57 Ohio St., 1, that the statute was not obnoxious to the constitutional provisions referred to.

The other ground on which the writ demanded is sought is, briefly stated, that, the refusal of the medical board to recognize the relator as an institution of the required standard, is purely arbitrary and the result of prejudice because the system taught by it is new and different from that adopted by other medical colleges. This does not appear to be a sufficient ground for granting the writ at the relator's instance. The proper scope of a proceeding in mandamus against an official board, is to command the performance of acts

<sup>1</sup> The Weekly Law Bulletin and Ohio Law Journal, June 10, 1901, p. 365.

which the law has specifically enjoined upon it as a duty resulting from the office. Section 6741, Revised Statutes. Unless the duty is so enjoined, the remedy is inappropriate. A careful examination of the statutes fails to discover any provision authorizing an application to the board by a medical institution to obtain official recognition of its good standing, or any provision requiring of the board any official action in that behalf upon such an application. And such official action not being enjoined by statute, cannot be required by writ of mandamus. Nor, do we find any provision which makes it the duty of the board to determine in advance of an application for a certificate to practise medicine, whether a person holds a diploma from a medical institution of the proper standing. It is only when a diploma is presented upon such application, that the action of the board can be invoked. Whether, upon the refusal of the board to grant a certificate to an applicant, mandamus will lie on his relation, must depend upon the facts of each case. Such cases cannot be covered by a general order to grant certificates to the graduates of any particular college or institution, for, until an application is actually made, by one who then shows himself entitled to a certificate, the duty of the board to grant it does not arise. And then, for a refusal to perform that duty, the remedy belongs to the applicant, as the party directly interested, and not to the college on whose diploma the application was made, and whose interest is only remotely affected.

The statute does not define what shall constitute a medical institution "in good standing." Its language is that "if the board shall find the diploma to be genuine, and from a legally chartered medical institution in good standing as determined by the board," etc., thus leaving the standing of the institution whose diploma is presented by an applicant, to be determined according to the best judgment of the board.

It is unnecessary to require here whether there may be cases in which the courts would undertake to correct or control the judgment of the board on this question. It is clear that the standing of a medical college within the meaning of the statute, is not to be determined alone from the course of study it has prescribed for graduation. The statute imports, at least, that the institution shall be one which has established a favorable reputation among members of the medical profession; and the board should not be required to recognize one, that, from the brief period of its existence, or the novelty of its system of treatment, has not yet acquired such reputation, but might, in the judgment of the board, be considered as still in an experimental state. The statute has undoubtedly left much in this respect to the sound discretion of the members of the board, who, in passing upon the various applications presented to them, it must be assumed, will act as their official position requires, fairly, impartially, and justly to all concerned.

Demurrer sustained and petition dismissed.

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The secretary is pleased in that he is able to report the St. Paul meeting as very successful. Those going from the East,



who were able to join the "Academy Special," made a very congenial party and an informal session of the Council *en route* expedited the business when presented to the Council at its formal meeting. As the usual circular letter regarding the meeting has already been sent out and the full report of the executive sessions is to be published in the next number, no account of the meeting need be added here. As will be seen in the present number, the College Association made it possible for the Southern Association to unite with the National Society, while the Confederation of Examining Boards, to quote one of its most active and influential members, "sank reciprocity so deep that it will not be apt to rise again." The great changes made in the form of government of the American Medical Association are fully known to all. Altogether the first meetings in the twentieth century of all the societies gathered at St. Paul were of unusual import, and, if rightly followed up, will have marked the beginnings of greater usefulness for them all.

Too much praise cannot be given to the good people of St. Paul (and of Minneapolis of course) for the numberless courtesies extended. The homeward journey was a pleasant one, punctuated, as it was, by a stop at Buffalo and a brief visit to the Exposition. If there was nothing to be seen at the Pan American except the wondrous electric illumination, it would be worth a long journey to look at that alone. It is worthy a longer journey, consequently, because of the extent and variety of its exhibits.

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The homeopathic members of examining and licensing boards have a national association. One might ask *cui bono?* But this paragraph is rather for a news item than a discussion. At their eleventh annual meeting held in Utica, N. Y., in June last they elected the following officers: Dr. Augustus Korndoerfer, Philadelphia, *President*; H. M. Paine, Atlanta, *Secretary*; and E. Cranch, Erie, *Treasurer*. They also adopted the following resolutions:

*Whereas*, Enlightened judgment, sound reason, and well established principles of government, as well, also, as the results of experience, establish the assumption that public interests can be conserved and the greatest good to the greatest number can be promoted in the treatment of disease through the instrumentality of those only who furnish evidence of a required amount of preparatory training; and,

*Whereas*, The utmost liberty being accorded to all who are properly qualified to practise in the use of any and all material or immaterial measures employed ; therefore,

*Resolved*, That we express hearty approval of the provisions of all medical laws whereby uneducated and improperly qualified persons are prevented from assuming the responsible duties of treating the sick.

### BOOK NOTICES.

STUDENT'S MANUAL SERIES ON DISEASES OF THE SKIN, II—Eczema, with an Analysis of Eight Thousand Cases of the Disease. BY L. DUNCAN BULKLEY, A.M., M.D. New York and London : G. P. Putnam's Sons. 1901. 368 pp. Price, \$1.25.

Dr. Bulkley's plan of a series of small volumes upon skin diseases, seems, to the reviewer, to be very happy. Beginning with a general manual (which received favorable comment from us at the time of its publishing), which treated of the whole subject concisely, we have now the first of the series upon a special form of disease. Quite naturally, eczema is first to be treated. The book, which is of handy size for comfortable reading, is divided into fifteen chapters. Beginning with a definition of the disease, its frequency and nature, it treats in turn of its causation, pathology, forms ; its diagnosis, prognosis, and treatment. Chapters are devoted to infantile eczema, and the various local manifestations of the disease, and concludes with chapters on diet and hygiene, and therapeutics.

Our first introduction to Dr. Bulkley's contributions to dermatology was when the ink was hardly dry upon our diploma, and we read his edition of Neumann. *Tempora mutantur*, it is true, *et nos in illos mutamus*, but other factors than passing years have been at work, and the newly fledged of to-day may be thankful to have access to this handbook on eczema.

THE SIXTH VOLUME OF SAJOU'S ANNUAL AND ANALYTICAL CYCLOPEDIA OF PRACTICAL MEDICINE completes the first series.<sup>1</sup>

The work as a whole, thus completed, fulfils the expectations raised by the first volume, and affords a very useful library of reference for subjects medical, while the truly handsome dress and beautiful letter press enhance the pleasure in consulting its pages. The series is worthy of commendation.

<sup>1</sup> Philadelphia : The F. A. Davis Co.

# BULLETIN

OF THE

## American Academy of Medicine

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THE AMERICAN ACADEMY OF MEDICINE is not responsible for the sentiments expressed in any paper or address published in the BULLETIN.

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### SOME OF THE ETHICAL AND SOCIOLOGIC RELATIONS OF THE PHYSICIANS TO THE COMMUNITY.<sup>1</sup>

BY S. D. RISLEY, M.D., of Philadelphia, Pa.

#### *Fellow Academicians and Invited Guests:*

LADIES AND GENTLEMEN—Custom has made it my duty to invite you to the consideration of the president's annual address. It is a task which I approach with contending emotions. On the one hand I am conscious of a warrantable pride in the great honor you have conferred by electing me to the highest office in the gift of the Academy. On the other hand I am perturbed by the fear that I shall not be able to successfully give voice to the exalted ideas and lofty ambitions which in the first place called the Academy into existence, and which for a quarter of a century have characterized its proceedings. My one regret is that for a longer period, I have not been privileged to enjoy its pleasing associations and profit by its unselfish and stimulating influences.

I recall to-night the delightful circumstances of our last annual meeting. The broad open windows through which we breathed the briny air, and looked out upon the tumbling surf and

<sup>1</sup> The president's address delivered before the Academy of Medicine, St Paul, June 1, 1901.

broad expanse of sea. "The sea ! the sea ! oh, glorious sea !" the opening strain of that famous ode to the ocean, like some sweet but insistent minor chord in music obtruded itself as I sat and gathered inspiration from the highly important and interesting proceedings of the Academy.

To-night, on the twenty-sixth anniversary, we meet under other skies, surrounded by widely different, but none-the-less inspiring scenes and influences. At our feet flows by on its journey to the sea the great "Father of Waters." Yonder lies the broad expanse of prairie and forest—but yesterday filled with deer and bison, and peopled by red men; to-day, fields of maize and wheat, farm houses and hamlets, laugh in the sunshine. Listen and we may still hear the echoing foot-falls of the legendary Hiawatha, who :

Heeded not her woman's warning,  
Forth he strode into the forest."

\* \* \* \*

So he journeyed westward, westward,  
Left the fleetest deer behind him,  
Crossed the rushing Esconawbaw,  
Crossed the mighty Mississippi  
Crossed the mountains of the prairie,  
Passed the land of crows and foxes,  
Passed the dwellings of the Blackfeet,  
Came unto the Rocky mountains,  
To the Kingdom of the West-wind ;  
Where upon the gusty summits  
Sat the ancient Mudjekeewis,  
Ruler of the winds of Heaven.

What a marvelous change has been wrought during the fleeting years of half a century ! A greater than Aladdin with his wonder-working lamp has been here ! Where curled heavenward the blue smoke from the apex of a thousand wigwams has been reared a great city imbued with the tense life of an advancing civilization ; the air fretted by the hum of her industries, the banks of the great river concealed by huge marts of trade, the hillsides and summits studded by comfortable homes and palatial residences, schools and colleges, hospitals and churches. We are the welcomed guests of this great people. Will you not join me in a paraphrase of the beautiful invocation

of Israel's King, pronounced over an oriental city 3000 years ago, and wish for St. Paul that "peace may be within her walls and prosperity within her palaces?"

I need not remind you that, as we close the twenty-sixth anniversary of the Academy, we bid farewell to the old century, to which we are so deeply indebted, and with shaded eyes and cautious, but unfaltering, step place our feet in the trackless spaces of the new. Great problems are left over by the nineteenth century for solution by the twentieth and many of these unanswered inquiries are lying at the portals of the American Academy of Medicine. Have we courage to grapple with their solution?

The president of the Academy, my successor, in office in a hundred years—in his annual address may find interest in entertaining his fellow Academicians by a sketch of the first quarter century of its history. If he prove to be a careful student of our archives and of contemporary events and conditions he will discover and trace the small beginning and steady progress; will recognize the unselfish purpose and tenacity of pursuit which characterized the sturdy and courageous founders. If a true philosopher as well as an accurate and painstaking historian, he will discover inscribed over the portal of the ancient Academy the motto "For the Welfare of the Community." In his well-rounded periods, in the tone of his voice, we may discover that sense of complacency with which each succeeding century regards its predecessor. Do we not hear his expression of surprise that, even so far back as the last quarter of the nineteenth century, should have been formulated so praiseworthy a definition of sociology, so many evidences discoverable of a truly altruistic spirit? I draw reign on imagination—staggered somewhat lest the far-away critic may chance in his research to fall upon this page.

I have in mind to trace some of the ethical and sociologic relations of the physician to the community. In this design I shall not presume to take the place of a teacher but shall rather endeavor to voice what I conceive to be the spirit and trend of the Academy of Medicine in its relation to its environments. I am

not unmindful of the assumption, but am encouraged by your known generosity.

How will you know the pitch of that great bell  
 Too large for you to stir? Let but a flute  
 Play 'neath the fine mixed metal: Listen close  
 'Til the right note flows forth, a silvery rill;  
 Then shall the huge bell tremble, then the mass  
 With myriad waves concurrent shall respond  
 In low soft unison.

My theme is not chosen with any intention of discussing the somewhat hackneyed subject of the "Code of Medical Ethics." It is not necessary in this presence to speak of the Golden Rule out of which springs as a natural fruitage the graces of manner and the just and honorable relations which must always characterize the conduct of the true physician. This rule which lies at the foundation of Christian ethics, when all is said, is but the working formula for the Academy in its efforts to solve the complex problems of medical sociology. Any serious inquiry into the relations of the physician to the community opens a much wider vista than the simple relations of physicians to each other. If ethics may be correctly defined as that science which on the one hand treats of the nature and grounds of moral obligation, and on the other formulates rules of human conduct based upon these obligations, then the ethical relation of the profession of medicine to its environment takes on a deeper and more serious significance,—it glows with a radiance which should dispel the mists of ignoble purpose. I have a deep conviction that it is this sense of obligation, and a degree of like-mindedness to which the profession has in a large measure attained, that forms the basis for professional fraternity. It is this praiseworthy ideal which separates, and must forever separate the charlatan from professional affiliation. In the ranks of the profession we find the scientific self-sacrificing physician striving to assuage pain, to heal the sick, and to prevent disease. In the ranks of the charlatan we witness, on the other hand, the embodiment of selfishness and greed, preying, vampire-like upon human weakness, ignorance, and need. No class of men are more deeply influenced than the physicians by the altruistic spirit which is a controlling factor in the social evolution of our western civiliza-

tion. A careful study of their daily routine in the consulting room, the sick chamber, in laboratory, clinic and hospital ward will disclose a vast army of educated, well-equipped men and women actively engaged in lifting the burdens from others' shoulders, asking not for thanks, or gratitude, or riches, but only that their own daily recurring needs shall be supplied; even looking with noteworthy complacency upon the strangely wanting appreciation of their labors manifested by so large a part of every community; even witnessing with a surprising equanimity, the eagerness with which every new medical fad or ism or pathy, devised in ignorance or covetousness, is accepted by a large increment of the laity as a new gospel of healing, their backs being meanwhile turned upon the trustworthy and faithful doctor. In all justice it is within the rights of the physician to expect that judgment as to the value of new claims in all matters medical, would be committed to the reputable members of a profession whose business it is to investigate them, and whose training fits them alone to pass trustworthy opinion as to their merits. But so far from realizing this just expectation we find many persons in every community accepting, without question, the dictum of the lay reporter or the paid newspaper advertisement, or see them led away by the vagaries of some medical dogma. However discouraging this state of affairs, it is to the lasting credit of the medical profession that they do not permit it to obscure their ideals of responsibility and duty, remembering always that, while commercialism is the essential character of the charlatan, the mercenary doctor is as much out of place in the ranks of the profession as would be the sinner in the pulpit, urging his fellow mortals to flee from the wrath to come. In the final outcome it will be found, that only so far as this attitude of recognized responsibility and the unselfish performance of duty is maintained, will the respect and confidence of the community be enjoyed or the helping hand be cordially received; for even in the frequent lapses from reciprocity on the part of the laity, they nevertheless are controlled by an underlying sense of security in the belief that should the new fad prove to be a will-o-the-wisp they can with confidence return to the family doctor. In the end Dr. Sangrado is despised while Dr. McClure is awarded

an enduring monument reared in the affection and gratitude of those to whom he has unselfishly ministered. To disturb this confidence by professional disloyalty to the interests of the community would serve only to block the way to the establishment of proper ethical relations to the social structure. No body of men are in fact doing more for the satisfactory socialization of their respective communities than the physicians. But for them the poor would be deprived of the ministry of healing, our hospitals and other institutions for the care of the defective and dependent classes could not exist, while sanitary science, the crowning glory of our profession, would have remained in the womb of the future.

But do not misunderstand me. The laborer, even the physician, is worthy of his hire. I plead only for the sturdy maintenance of those ideals of professional comity which will preserve the physician from descending to the marshy levels of an unworthy commercialism, from the standard of the philanthropist to that of the self-seeker, from the standards of the gentleman to that of the trades unions.

At this point the temptation is presented to discuss at some length the existing relations between the doctor and the man of business; the doctor and the lay boards of management of hospitals and other institutions where his services are required; of the doctor in literature and in society, using the term in its narrowest sense. This is, however, a subject for a more facile pen, a literary field which has been either neglected or sown thick with tares by the writers of fiction. One must make a long and well-nigh fruitless search to discover in literature the doctor as we know him. The doctor of fiction for example is too often a mountebank or a voodoo, a simpleton or a doctrinaire. It is true we get here and there glimpses of the real physician. Goethe more than once describes him with a note of genuine appreciation in his "Autobiography, Truth and Fiction," and George Elliott has drawn him with unerring fidelity as Lydgate, who is placed upon the stage in "Middlemarch" as a faithful and scientific doctor, but even here his professional colleagues are made to play a sorry rôle. Dr. S. Wier Mitchell's "Dr. North and His Friends" is a faithful portrayal, it is true by a doctor, of



another, albeit a rare type of physician; and who does not stand ready to thank the Rev. Dr. Watson for the picture of Dr. MacClure, although we may not be so ready to forgive him the libel on the London consultant. But where else shall we find a true note of adequate appreciation of the doctor except possibly a hint now and again in the modern short story? One would expect, *a priori*, that the man who is present at the birth and the death; who is first to be summoned in every human tragedy; whose presence in the sombre quiet of the sick-chamber is looked for with eager expectation by invalids and anxious friends; whose experience in the hospital ward, clinical room and at the bedside, where are wrought out the finale of so many of the sad and wearing episodes of human existence and struggle, would in his very personality be invested by a halo of such singular and absorbing interest as would command the pen of genius. Instead, however, genius has not failed to pass by the members of the French Academy and depict for us the unsavory character of N. Baleinier, the proprietor of a madhouse, whom Eugene Sue employs for the temporary disposal of his heroine in the "Wandering Jew", or Dr. Louis or Balsamo the creations of the Elder Dumas,—. In one of their nursery rhymes even the Chinese doctor is laughed at as follows :

My wife's little daughter once fell very ill,  
And we called for a doctor to give her a pill.  
He wrote a prescription which now we will give her,  
In which he has ordered a mosquito's liver,  
And then in addition the heart of a flea,  
And half-pound of fly wings to make her some tea.

But we need not resort to Chinese nursery rhymes for poetical estimates of the doctor; for example, Dryden thus dishes up the doctor for his generation :

So lived our sires, ere doctors learned to kill  
And multiplied with theirs the weekly bill.

Or by Danscomb :

See *one* physician, like a sculler plies,  
The patient lingers and by inches dies,  
But *two* physicians like a pair of oars,  
Waft him more swiftly to the Stygian shores.

Or this by Gay :

Is there no hope? the sick man said,  
 The silent doctor shook his head,  
 And took his leave with signs of sorrow,  
 Despairing of his fee to-morrow.

It is fair to suppose that the Clinical Society of London or the Sydenham Society might have furnished material for other shafts than those of wit or malice. On the other hand we turn from the poets with some surprise to find falling from the pen of Voltaire, the blight of whose influence still hangs darkly over France, the following: "Nothing is more estimable than a physician who, having studied nature from his youth, knows the properties of the human body, the diseases which assail it, the remedies which will benefit it, exercises his art with caution, and pays equal attention to the rich and the poor."

There is probably little need for adverse criticism of the reception accorded to the individual physician by his own clientele. There is indeed no human relation apart from that of the domestic hearthstone more felicitous than that of the trusted family physician with those to whom he ministers. Within this charmed circle he finds not only labor and emolument, happiness and contentment but is too frequently satisfied, and his eyes closed to the broader fields which it is his duty to cultivate. Learned in his own science and expert in his art; busy in its practical daily application to individual need, he too frequently fails to comprehend or observe the important sociologic relations of his profession. It is in this failure that we may discover the cause for his neglect or misrepresentation in literature and his too feeble influence in controlling those national policies which are such powerful factors in social evolution. The complex problems of sanitation in civil and military life; the questions involved in our national quarantine laws; the medical, physiologic and racial inquiries which should lie at the foundation of our immigration regulations; the careful and systematic medical inspection of our schools; the extremely complex relations which are now known to exist between the administration of justice and the mental, physiologic and pathologic conditions of the criminal, are all problems that cannot be wisely and justly solved without the aid of medical science.

The statesman and jurist study these important sociologic problems from the standpoint of economics or weigh them in the wavering scale pans of blindfolded justice. It is the duty of the medical profession to cry aloud that there are other and more important factors in the problems presented for solution than our economic welfare or the ancient dictum of justice: "An eye for an eye and a tooth for a tooth."

Scientific medicine in the twentieth century must come to be a city of refuge into which many outcasts may flee to escape the vengeance of an imperfectly instructed social body, and where the bandage may be taken from the eyes of justice in her estimates of responsibility for crime.

But how is the medical profession to impress itself upon our social structure and disseminate the knowledge which it possesses for the public welfare? I answer, first of all by a wise and thorough organization. I am happy to bear witness to a growing appreciation of its importance. As individuals, working with uniform standards, much can be done in the education of the community and in the creation of a public sentiment along medical lines, but vast influence can be exerted by a well instructed and a united profession, not only for the improvement and elevation of its members in its specific fields of activity, but also in initiating, modifying and controlling legislation in all those directions where broad socio-medical and medico-legal problems are involved. The layman's mental conception of the doctor in his gig or in the consulting room, in the lying-in chamber or at the bedside, thoughtfully striving to avert the threatened tragedy, should be broadened into that of a man of science, who not only strives to heal the sick and the injured, but is also a man of affairs deeply interested in the problems of the advancing social life about him. Until the popular conception of the profession is enlightened or modified, and the antiquated ideals of the doctor are revised we cannot hope to see the name of any physician, however worthy, enrolled in the court of fame.

One of the striking advantages therefore of a thoroughly organized profession would be to emphasize its educational influences. This has been, certainly in recent times, one of the most valuable assets of the profession to the community. As

the physician pursues his daily vocation, his constant hints to the family on the hygienic environment and equipment of the home, the selection and preparation of foods, the kind of clothing to be chosen, etc., have been of untold value. He has given his knowledge and experience in these directions without stint not only for the cure and comfort of the sick but for the prevention of disease. It is so natural for him to do this for his patrons, that it has been accepted by them as a matter of course, much as they receive the air they breathe or the water they drink. He has stood to them as the hand of Providence. But while in his individual work he has been an educator on these lines, as an organized body the educational influence of the profession can and should be greatly increased. Many of the abuses from which both the community and the physician suffer are in large measure the outgrowth of ignorance on the part of the laity as to the real conditions. Take for examples, the abuse of medical charity, the evil legislation which permits the chartering by the state of colleges of so-called Christian science, osteopathy, schools for the oculist-optician, *et hoc genus omne*. The physician knows that these are, one and all, rank impositions based upon the ignorance and credulity of the layman regarding medical matters. What is needed most of all for these abuses is an educated public sentiment. Captious opposition by the doctor is always an unfortunate attitude to assume. In many, if not in most instances, the opposition is ascribed to unworthy motives. If he objects to the use of the public clinic and hospital by those who do not need to seek for charitable medical treatment it is ascribed to his own hunger for fees. If he approaches the law-makers in opposition to some pending legislation for the establishment or support of some unworthy medical object he is again met with the accusation that he objects for the reason that it will interfere with his own business prospects. He therefore shrinks from the contumely which will be visited upon him in any effort he may put forth to shield the people from the baneful effects of ignorant and faulty legislation; in a word, to the physician is ascribed the emotions and antagonisms of the business world rather than those of the philanthropist. Another and very potent reason for his silence,

strangely enough, grows out of the code of medical ethics. There is nothing from which the doctor shrinks with more pertinacity than to appear in the public press. The doctor whose name is constantly before the public, in print, is very soon, often very unjustly, the subject of adverse criticism by his confrères, and no one is probably more jealous of the good opinion of his fellows than the physician. Nevertheless, the most important avenue by which large communities can be reached, in modern times, and public opinion influenced or instructed is the public press. The interview with individual doctors on medical affairs has often proved of great educational value to communities, but is usually to be deprecated since it opens an opportunity for the statement of opposing views between which the non-medical portions of the community are not prepared to decide, thus confusing the public mind. For example, in one of our large cities the question arose as to whether tuberculosis should be placed upon the list of contagious diseases, and the home of any victim of this disease be placed in quarantine or registered. Can one conceive of the unfortunate result which must have followed the promiscuous interviewing of doctors and patients regarding this question by various newspapers of a large city? It is obvious that such a question must first of all receive the broadest consideration by an organized profession before any public discussion is admissible and then, only a statement conveying from some organized medical body the consensus of view and the reasons upon which it is based. On the other hand during an epidemic of typhoid fever in Philadelphia great benefit to citizens in certain districts of the city resulted from the educational value of instruction conveyed through the newspapers by editorials, evidently written or inspired by medical men, and through interviews explaining the nature of the contagion and the means of prevention. To this end the powerful influence of a great society like the American Academy of Medicine or the American Medical Association is incalculable. With such aims in view every reputable member of the profession should enroll his name upon its list of members. Before these societies, should then appear for discussion the great questions which in their medical and scientific aspects involve the welfare of the people.

The conclusions reached could then be accorded prudent publicity for the education of the community and for the building-up of an intelligent public opinion. That there is great need for caution however, in any effort to teach the public, finds demonstration in the daily experiences of every physician. The erroneous views held by the profession of a past generation and taught to their patients and the public through innumerable channels cling to the minds of the laity with amazing tenacity. Many illustrations might be cited to show the baneful influence of erroneous medical teaching, and the tenacity with which it endures, and would serve not only to emphasize the importance of extreme caution, but that only the best things, those which the profession at large believe to be true, shall be disseminated, and not the half truths or notions of some investigator until experience shall have demonstrated their real value. Nevertheless, it is usually the new and untried that finds its way into the public press.

Witness, for example, the false hopes aroused in the mind of the consumptive by the premature publication of the laboratory experiments of Koch. This often occurs through illy chosen excerpts from publications in medical journals, of subjects still under discussion. For the avoidance of erroneous teaching and practice, first of all we must have an educated profession. To this end the American Academy of Medicine was founded and we live to see its ideals on this line of its work in large measure realized. But it is not sufficient to secure college-bred men for medical students or even to establish higher ideals for the medical curriculum. After the young medical man has entered upon the practice of his art he should as speedily as possible be initiated into the profession by membership in organized medical societies where, by example, he will speedily become imbued with the spirit and ideals of the best professional life. This can be done more quickly and successfully by active membership in such societies than in any other way,—provided always that the societies are conducted, not for the purposes of personal aggrandizement by a few medical politicians, but for the advancement of scientific medicine, and for the opportunity they afford for organized effort in the direction of medical sociology. It is with much

pleasure that I note the great advance which has been made of recent years in this respect. The rapidly growing "American Medical Association," the numerous special societies which now meet triennially in Washington under the form of "The Congress of Physicians and Surgeons", and our own Academy are at last beginning to exert their influence and to realize the power of organization not only for the creation and maintenance of a degree of like-mindedness in the profession, and for the personal instruction of their members in specified medical lines, but also for the exercise of professional influence on the lines of national policy.

That much remains to be done both in the improvement of professional ideals and practice in order to secure the highest efficiency in its public educational influence must be obvious to every thoughtful observer in our ranks. Every teacher who would win success must first secure the confidence and respect of the pupil. If the medical profession is not accepted by all classes of the community it may be taken as evidence that this does not enjoy unalloyed confidence. This may be explained in part by the fact that in the very nature of things the medical man must often be in error. Medicine is not in many respects an exact science; much truth is still at the bottom of the well; then too, man has his allotted time to live. But unfortunately even the truth which has been uncovered, the knowledge we do possess, is concealed from the public through erroneous interpretations of our code of medical ethics. Our light is too often placed under a bushel rather than on a candlestick, or, is unworthily represented by many individuals in the ranks of the profession and these serve to drag downward to their lower level the character of the profession as a whole, as estimated by the layman. The early efforts of the Academy, therefore, toward establishing a higher medical education and more rigid ethical requirements, were directed to the root of the matter.

A careful study of the history of medicine during the nineteenth century must bring into view a large army of earnest men industriously searching for the truth. The historian will be pleased to note the great advance but will discover along the pathway of the last century in medicine the grave of many

erroneous notions and theories, which for their brief life held sway over the minds of the profession, controlling and directing their practice. These dead theories are now and again brought forth from their graves by recalcitrants and like spectres are paraded before the world to serve as an approbium to what they are pleased to term "so-called medical science," but it should be remembered that the men who created these theories have willingly buried them in a deserved oblivion as soon as their futility was demonstrated and with untiring zeal and a laudable courage sought further for the truth. No disappointment, however bitter, was permitted to vanquish them in their unselfish pursuit of the Holy Grail.

In no direction possibly has greater advance been made during the past century on medico-sociologic lines than in our knowledge of the defective classes of the population. But this knowledge has only served thus far to afford some comprehension of the extreme complexity of the problem of how best to deal with these unfortunates. Careful study of the social evolution of the race has, on the one hand, taught us the hopeless condition of the habitual criminal, the mentally defective and pauper classes. In large measure discouragement has thus far been the result of our endeavor to reform the one or train to useful citizenship the other. The higher ethical considerations cause us to stand aghast at the suggestion that they be left, as indeed they were before the advent of the Christian era, to the unobstructed operation of the law of selection. This law, harsh, and utterly void of sympathy as at first sight it seems, was nevertheless the natural method of progress for the race; but under modern social conditions with its altruistic ideals, based upon the recognition of a universal brotherhood, the weak and unfortunate are protected against the operation of the law which ordained their destruction. In the eye of the law of selection they were reprobate. We have sought for their physical redemption but have been taught the futility of our well-meant endeavors. We have fed and clothed the pauper, and sought to imbue him with the spirit of thrift and self-help, but like "the sow that was washed he has returned to wallow in the mire." Instead of hanging the thief, as was done in former times, or



imprisoning him, he has been placed in a reformatory, taught useful trades and his mind stored with moral precepts; "but can the Ethiopian change his skin or the leopard his spots?" The criminal too often remains the criminal still. He too is reprobate. We have reared asylums and training schools for the feeble-minded, and have sought to protect and to train them into useful lives only to discover that they too are the victims of a physical and moral reprobation.

At the beginning of a new century we stand before the problems of degeneracy and criminology, in some measure discouraged, yet thoughtful. From the standpoint of ethics we must regard these unfortunates as our wards. From the view point of social evolution we must declare them unfit; we can discover no rational basis for their protection in the inalienable right of liberty of action and the choice of pursuit. They remain an ulcer on our social tissue. Christian ethics has reared for them almshouses, asylums, and hospitals. The state has immured them in reformatories and prisons for the protection of the community against their frailties and their deeds. Science has grouped them in classes apart, the irresponsible victims of heredity, disease, alienation by natural laws. What shall we do with them? What course can we take which shall neither wound our compassion or thwart our sense of justice and equity, and at the same time permit us to follow wisely the teaching of science? To give freedom of action to these unfortunates is to perpetuate the evils we recognize as inseparable from their existence, and to multiply sorrow; it would prove to be the opening wide of a Pandora's box to permit the escape and free riot of monstrous, indescribable things which a Hercules with a thousand lives could not vanquish in untold generations. It is not necessary in this presence, even did time permit, to discuss the plans which have been suggested and those which have been put in operation for the betterment of the idiot and the imbecile, the pauper and the criminal, or to point out the discouraging result of these well meant and scientifically conducted experiments. No hope except by custodial care has ever been inspired, even in the minds of the most sanguine, for the low-grade imbecile and idiot; but for the middle- and high-grade defective hope

was excited, by the frequent display of cunning ingenuity so often witnessed, that, by suitable training in well-equipped schools, the ban of heredity, the congenital incubus, might in sufficient degree be lifted from his life to send him forth into the world to a limited but useful citizenship. But increasing experience has served to show that the improvement, even in the most promising examples of the result of training, is but short-lived, and that even under the continued stress of the school environment the ban of degeneration soon once more asserts its sway and they settle back into the mire whence they had been digged. Any study of the statistics which have been rapidly accumulating during recent years serves to show the malignant, immutable influence of heredity in the defective and criminal classes. To permit them to propagate is not only to perpetuate their kind but to rapidly multiply the associated evils in our social structure. McKim, recognizing the evils to society growing out of the unfortunate lives of these defective classes, witnessing the very intimate relation between degeneracy, epilepsy, inebriacy, and crime, has not hesitated to advocate even the painless taking of the life of such by the state expecting by this radical treatment to end at least the propagation of their kind. This is certainly a radical measure, a severe blow to our compassion, but serves to suggest one author's appreciation of the ghastly features of the social evil which our "softness," the ethical basis of our modern civilization, has permitted to grow up in our midst. Not only are vast numbers of hereditary paupers, imbeciles, inebriates, and criminals being born annually in our midst to swell the number of these degenerates, but they are entering through the too widely open doors of our immigration system.

While modern study has done much to instruct the physician and the student of sociology as to the essentially unimprovable character of these unfortunates, and the hopeless future which hangs darkly over their lives, the community at large, the average citizen is not sufficiently informed of the teachings of science regarding them. I urge upon the Academy of Medicine as a duty that it extend as far as may be its educational influence on these lines also. The complexity of the problems involved is appalling. Allusion has thus far been made only to the obviously defective classes,

but, between these and the obviously normal individual exists a broad fringe, the fimbriated border of which extends downward into the dank mire of degeneracy, penetrating more deeply its mass with each succeeding generation, and so constantly furnishing recruits to the submerged strata. How shall these serious considerations be planted in the public mind in such a manner as to secure adequate comprehension of their serious importance and to thus retard the downward progress? It is obvious that the factors in the problem before us are numerous but principally two.

In the first place, viewed from the standpoint of the already submerged individual whether criminal or imbecile, society should assert its right to prevent the propagation of his kind. It should come to understand that the law of heredity is well-nigh immutable in its operation; that the child of the feeble-minded parent is more firmly fixed under the law of degeneracy than were his parents; that the child of the criminal and inebriate begins his vicious life not only earlier but pursues it with a momentum not equaled by the parent. The community at large has yet to learn that the child who "comes into the world gin-begotten", as Gilbert Parker has written, "has the instinct for liquor in his brain, like the scent of the fox in the nostrils of the hound." We cannot hope "to gather grapes of thorns or figs of thistles." The downward momentum of the law of degeneration is upon these unfortunate classes of our population. I can only therefore urge before the Academy once more the remedy so eloquently insisted upon by your president in his annual address last year; *viz.*, the asexualization, under suitable legal provision, of the individuals of this unfortunate class.

But in the second place it should be understood that these classes are recruited from the fimbriated social border, composed by the children of the unrecognized high-grade imbecile and epileptic, of the silly half-witted consumer of nervines and stimulants; of the opium habitué and the drunkard, and the offspring of the feeble and diseased parent. Even if McKim's drastic remedy should be adopted, or if asexualization should be legalized by the State for the disposal of the degenerates now under custodial care in asylums, reformatories and prisons, it is obvious that it would

result in failure to free these institutions permanently so long as the bed left vacant by execution or at least by the physiological ending of the sexual life of those rendered innocuous by surgical means, is immediately occupied by a recruit from the social fringe already alluded to.

It is plain that the ultimate remedy must be the control of the sources of degeneracy. This control lies primarily in a broader education of the community regarding the hereditary transmission of family traits and peculiarities. It should be taught without hesitation that marriage contracted by individuals who are the victims of alcoholism, of the opium or cocaine habit, of epilepsy or of many forms of disease; by individuals the tendency of whose lives is peculiar and erratic does not safeguard the social interests of the coming generation. That inebriacy is, in a large percentage of the cases, but one manifestation of degeneracy and should be grouped with certain phases of epilepsy, with prostitution, pauperism, and crime has been abundantly proved. The hunger of the nervous system for nervines, stimulants, opiates, etc., manifested by large groups of persons moving to and fro in the midst of our social structure, is well known to be the result of some congenital blight which has fallen upon the vitality of the individual. Too frequently there is associated with these tendencies not only an attractive person but mental qualities closely allied to genius but wanting, on careful analysis, in that balance which gives repose and guides the individual calmly but steadily in the straight and narrow way of a virtuous and contented life. The very abnormalities of such characters furnish striking features which attract attention, and between the sexes, foster those associations which result in marriage. It is obvious therefore that not only should the state stand ready to authorize measures for preventing the propagation of degenerates recognized as such, but should also provide for wise regulation of the marriage contract. We hear much discussion of later years regarding uniform legislation in the United States for the restriction and regulation of divorces, but the enormities of the divorce courts daily brought to our attention by the public press would speedily vanish if marriage were entered upon under wiser state regulations, and with greater

knowledge and circumspection upon the part of the contracting parties. Legislation upon the lines indicated has been regarded as against public policy since it would tend, it has been argued, to retard the growth of the population and would foster illicit relations. Whether this is true or not the experience of one state legislature which has sought to restrict the marriage of the unfit has proved how extremely difficult is the task to which it has committed itself. The ridicule and opposition of a large section of the public press; the antagonistic views expressed by individuals, especially women, set forth in published interviews have served to demonstrate how difficult it will be in the present state of public understanding to secure legislation which will prevent unsuitable marriages. It is plain therefore that a wider knowledge of the conditions is necessary to create public sentiment in opposition to the union of the unfit, and will in the end be far more potent for good than restrictive legislation. This public education must come largely through the teaching of the physician.

At present in the United States two young persons who by chance are thrown together acquire a mutual fondness for each other. They are too young to be controlled by anything but the instincts which mutually attract them. The serious and complex problems which we are discussing, are to them a sealed book. They are ignorant and in their ignorance go blindly forward until their feet are entangled for weal or woe in the meshes of the labyrinthine net which nature has spread in their unguarded pathway. They need advice, but who shall advise? The parents are less ignorant than the children only in so far as they have experienced the serious responsibilities which are sure to follow marriage; the teaching of science regarding the marriage relation is to them also a sealed book. If parents can be taught that the marriage of the unfit is not to secure their happiness but to entail untold misery instead; if young men could be made to understand that the silly, neurasthenic, untruthful girl will retain these qualities to the end and will bear to him a progeny of like-minded children who will bring his gray hairs in sorrow to the grave; if the young woman contemplating marriage can be made to see that her reckless, lawless, drinking, thriftless

lover will not reform his ways under her gentle influence because these habits are but the outward expression of an inborn vice, penetrating and ramifying the warp and woof of his moral, physical and mental being ; then, and only then, can we hope to stem the flood of recruits annually plunging downward to join the ranks of the submerged unfortunates who now fill our eleemosynary institutions, reformatories, and prisons.

It is obvious that if the inebriate is to be classed among the degenerates that one of the most important of the educational duties of the medical profession to the community is to instruct it regarding the complex problems presented by intemperance, for in the end they must be solved largely on physiologic and pathologic grounds. The questions presented are by no means new, but until comparatively recently have been considered almost solely from the standpoint of ethics or morals. From the time of the disgraceful scene in the life of Noah to the present day the obvious evils of intemperance have furnished opportunity for the sacred and secular historian. The inimitable Psalms of David, the Proverbs of Solomon, and the Charmedes of Plato in ancient literature have lauded the beauties of temperance, and depicted the evils and degradation of inebriacy. In modern times many phases of this great social incubus have been urged upon the people by the advocates of total abstinence with great enthusiasm and eloquence. Special attention has been paid to the obvious evils of intemperance, and to the manufacture and sale of alcoholic beverages ; for example, the economic waste, the degrading and ruinous effects of alcoholism upon the individual and the sorrowful results to the family. These have for more than a century been the frequent theme of pulpit and platform. The physician has been vigorously assailed for the employment of alcohol as a drug, and accused of making drunkards with his prescriptions. In the meantime he has been sedulously and honestly investigating its physiologic influence and pathologic results. For more than a quarter of a century medical literature has been teeming with the results of the scientific study of the subject. Before the investigator has stood the historic fact, that all races of men in all climes, back to the remotest ages, have been addicted to the use of alcoholic beverages or some form of

stimulant or intoxicant. He has been confronted by the very natural inquiry if there could be some underlying physiologic necessity which might be urged in explanation of the fact, and in some sense a justification of this habit of mankind. The thoughtful student of the social evolution of the race might truthfully reply however, *that this ancient habit does not imply a physiologic necessity, but is one only of the numerous evils with which the race has had to contend in its upward progress; that its hunger for, and its employment of stimulants is both a sign and a cause of its tendency to retrogression.*

Modern science I believe stands ready to-day to utter this as its verdict regarding the use of alcoholic beverages. This verdict may be withstood by the argument that many worthy men have, without obvious personal injury, employed these beverages daily through long lives and have won honorable fame in many avenues of human activity; that a much larger number have indulged in the fascination of the social drink habit and have lived esteemed and useful lives. That this is true cannot be denied, but it is equally true that from their ranks a vast army has sunk under its baneful influence into inebriacy, physical and moral ruin. It is the duty of science to inquire diligently for the solution of these facts which lie open to daily observation. Can it be true that the escape of the one and the fall of the other is but an illustration again of the law of selection, the survival of the fittest? Against any such interpretation stands the verdict of science *that the use of intoxicants has in all ages been one of the evils with which the race has had to contend in its upward progress, both a sign and a cause of its tendency to degeneration.*

That the thirst for stimulants may be acquired by habitual indulgence in their use is firmly believed by most students of the subject; that certain persons fall under the sway of such indulgence far more readily than others and sink by rapid stages into inebriacy is a fact open to daily observation. It is with the individual who succumbs to its baneful influence that we are especially concerned in this discussion. There are many persons in every community who have no desire for stimulants, who live active and useful lives to the end free from indulgence.

Can it be true that, in the case of the man who falls under the dominance of his appetite for strong drink, we find sufficient explanation of the fact in some inborn physiologic vice from which his more fortunate neighbor has escaped? If we answer this inquiry affirmatively the subject of intemperance assumes a deep and solemn significance, not only from the standpoint of ethics or morals but from the point of view of medical and social science and may well claim a place for discussion before the American Academy of Medicine. Such a view places at once the thirst for strong drink in close alliance with the other manifestations of degeneracy. In no direction therefore does the community stand in greater need of the instruction and counsel of the medical profession. If inebriacy is the fruitage of a congenital blight, careful inquiry should be made as to its origin. It is altogether probable that the side-boards of one generation are a prolific source of many unfortunate hereditary tendencies manifested in the next. Science condemns, but none too harshly, the physiologic crime of a wine-begotten and a wine-nourished posterity. The mother who taints the cells of the unborn infant with alcohol, opium, and nervines, or during its infantile life quiets its cries with hot gin, paregoric, or proprietary soothing syrups, all of which are likely to contain opium in some form, need not be surprised to find that she has planted deeply in the nervous system of her child an abnormal craving for stimulants, associated with absence of mental control over the appetites and desires. By way of illustration: The known history of a single family is terribly significant. Both parents were hard drinkers and for many years retired at night saturated with alcohol. Both died in early middle life, leaving five children—three boys and two girls. Of the former, all were drunkards,—one a homicide, one a habitual criminal, spending the greater part of his blighted life in prison for petty theft and burglary, the third a middle-grade imbecile and an epileptic. One of the girls was also an epileptic and rapidly sank into imbecility, the other into a degraded life. Yet the parents of these children started in life with no notable signs of degeneracy other than the abnormal hunger for alcohol. Whether the tendency was acquired or congenital it emphasizes the fact of a most inti-



mate hereditary relationship between alcoholism, crime, and degeneracy. Many more or less similar instances may be gleaned from the annals of criminology and from the records of our institutions for the care of the feeble-minded ; but far more numerous than these examples of sadly-darkened lives are instances of an inborn physiologic vice, the well-nigh uncontrollable craving for stimuli, not necessarily alcoholic but for some mental diversions or excitement which shall lift them out of the slough of incapability, discontent, and despondency, the impaired vitality insidiously hampering and controlling the desires and aspirations of the soul. Genius, it may be, dragged in the mire helplessly by the hereditary demon implanted by parental indulgence in strong drink or cerebral stimulants. The physician, the religious teacher, the jurist should contemplate these victims of parental sin with great compassion.

However deeply we may sympathize with the abstract righteousness of the motives and designs of the temperance advocate who assails the social evil of the drink habit on purely ethical grounds, or from the standpoint of prohibitory legislation, we can but see that no crusade, directed on these lines alone, can penetrate the soil in which lie, deeply embedded, the roots of a physiologic vice which finds its fruitage and expression in an uncontrollable hunger for stimulants. In a word, intemperance is in very many instances a disease, but a disease withal, which furnishes one of those strange examples where physiologic and moral and mental obliquity are so closely intertwined as to be inseparable. At this point science can have no contention with the religious teacher, no more indeed than in the case of the moral imbecile. Both science and religion must join hands and go forward stirred by a deep compassion, a philanthropic zeal, in a united crusade of education.

It may seem that I have chosen an ungracious task in thus pointing out some of the plague spots in our social tissue. It is as though one had purposely closed his eyes to the great progress of the race or had left the sunshine, and sought out the dark nooks and crannies, there to join in the solemn moan of the pessimist, or that of the weeping prophet, who as though he had in mind the law of heredity, in mourning over the shortcomings

and retrogressions of his people cried out: "He hath hedged me about that I cannot get out; he hath made my chain heavy; he hath enclosed my ways with hewn stone; he hath made my paths crooked." We should bear in mind however that as with prophetic vision he looked forward over the coming centuries he closed his prophecy with a gleam of hope as his eyes rested upon the Man of Calvary. The prophet looked forward with hope, but we may see, if we will, the gradual consummation of his vision as we witness the burdens falling from the shoulders of mankind. If we remain unconscious of the burdens that remain, how shall they be lifted? I would simply urge that at the commencement of the new century the socio-pathologic problems we have been discussing are presented to the medical profession for solution. In so far as the profession has come to recognize and understand these evils which affect our social body it is its duty to instruct, and counsel, and aid.

Heaven does with us as we with torches do,  
Not light them for themselves, for if our virtues  
Do not go forth of us, 'twere all alike  
As if we had them not.

The preceding remarks may be epitomized. I have striven to show that a most striking characteristic of the medical man is a sense of obligation to the community, that this ethical attitude finds expression not only in the daily routine of his laborious professional service, but in a pronounced educational influence on all those lines which pertain to the healthfulness of the people and their socio-medical welfare; that this influence is signally exerted in the investigation and control of the relations which our defective classes sustain to the social body. Almost suddenly the student of social evolution has come to realize that through the altruistic spirit of our civilization a rapidly increasing percentage of degenerates has grown up in our midst, a fact which presents a serious and most complex problem for solution by the new century. Two suggestions are made for its arrest: First, the legalization of means to prevent propagation of defectives by asexualization, and second, by a wider education of the community regarding the importance of selection in the mar-

riage contract and its control by the state. To solve these problems wisely and humanely will require the best efforts of the churchman, the physician, and the statesman. The picture before the mind of your essayist is of these three: With united purpose, bowing reverently, seeking for light and guidance in the solution of the many serious problems presented for the satisfactory socialization of the race.

## THE ABUSES OF INSTITUTIONALISM.<sup>1</sup>

BY E. G. CARPENTER, A.M., M.D., Superintendent State Hospital, Columbus, Ohio.

Perfection in methods for the accomplishment of some purpose is one of the results of our higher civilization. This has a special application in the manner in which our afflicted ones are now treated and cared for as aggregated. The heart and mind of man seems to have chosen the sick class of sufferers as especially meeting the need, so to speak, of those charitably inclined who have in their hands both time and substance as votive offerings. As a consequence everywhere in the world different kinds of hospitals and homes are being built and organized for the purpose of bringing together those who are unfortunate victims of some disease for the purpose of benefitting them. These all come under the generic head of institutions. This is applicable because they all conform to a certain uniformity in their organic make up. They are almost universally constituted alike in management,—there is the board of directors, the superintendent, his staff of assistants, and an array of subordinates. These unite their efforts in an orderly, harmonious, and systematic manner for the purpose of bringing about certain results. The adaptation of this working body to the building and its inmates for a purpose is the institution. The institutionalist has to do with their organization and conduction, or may maintain such an interest or relation to them as to make him an authority upon them, particularly as to their architecture, adaptation, and use.

The good uses to which an institution can be employed are myriad. Libraries might be written containing the benefits derived from their operation everywhere in the enlightened world. They exist in every community. Almost every individual has some kind of an interest in them. It may be as beneficiary, as financial patron, or simply as philanthropist. They are the subject of much inquiry, frequent visitation, and have much to do with the public in general. Germane to the subject of the conduction of these institutions, as having reference particularly to

<sup>1</sup> Read before the American Academy of Medicine, St. Paul, June 3, 1901.

hospitals and homes, we now frequently hear the term "institutionalism." What do we understand by institutionalism? The use of the suffix may be an orthographic convenience for making a noun of an adjective. An ism may mean a doctrine, as Darwinism, Messmerism, Calvinism, and cast no reflection upon the propounders. Then it is frequently used as a suffix in speaking of social sects or classes in a disparaging way; *e. g.*, puritanism, socialism, anarchism. Of such common practice has this become that it is now frequently employed in this sense. We may safely employ it as being an addition to, or a part of, something else to which it has reference. It may be an outgrowth of that to which it refers. It may therefore be something independent, capable of being considered in the abstract, and have attributes of itself and of its own kind. It is therefore an entity and susceptible of being described. Such a thing is institutionalism, for it not only pertains to institutions but is a part of them. It is an outgrowth of organization. What is it then as a part of the organization? We would describe it as a phase of institutional work in which the individual is possessed of a degree of apathy and disinterestedness, by reason of the nature of the duties, the methods employed, and as influenced by those directing the work. It is born of routinism, of doing the same thing over and over, day after day. It is an already established principle that those acts which were once accomplished only as associated with reflection, after being frequently repeated, become automatic. This is illustrated by the piano *virtuoso* who at first succeeds in the execution of a difficult number by closely watching the notes; afterward, having committed it by frequent playings, executes it with ease while carrying on a vivacious conversation with a friend at his side. Just as vicious and corrupt things take their rise and flourish in our social fabric, so do evils develop and prosper in the organization fabric of any kind of an institution. They are the malarial miasm arising in the luxuriant soil, the weeds of the neglected garden.

Routinism is an essential, in a degree, for the accomplishment of a certain result in all organizations where there are certain duties to be performed with regularity. Routinism in some places may be a virtue and yet breed the vice, perfunctorism.

Perfunctoryism in her turn leads to automatism. Automatism does not differ from that which is mechanical. That which operates in a mechanical way moves in fixed lines. It does so without reference to any present reflection, or any past experience. That which operates in fixed lines by reason of its mechanical devotion to its functions, does not admit of deviation or innovation, and in consequence is opposed to advancement and progress. However the inanimate mechanism differs from the animate in this, that it always does the same thing and can be relied upon in doing it the same way. On the other hand the animate automaton endeavors to lessen and to simplify its efforts in the performance of its functions. From the fact that it succeeds in this may be noted the sequence that it places limitations upon the possibilities of versatility and scope of usefulness. In institutionalism there is fixedness to early impressions and convictions.

Methods of activity seem to be anchored by the organization of their antiquity. An institution thus engulfed in this phase of its existence has no adaptation to the constant changes going on about it. The conceit of their own perfection blinds their eyes to the possibilities and necessities of advancement. They are sinking in the mire of their own stolidity. The confirmed institutionalist now instead of dominating the institution is dominated by it. He has yielded unthoughtedly and unguardedly to the effects of the lotus bean of self-satisfaction, and become a victim to its seductive influence.

A few examples may illustrate these observations. After a third of a century a nation finds itself in the throes of a war. The responsibility of a victory is placed upon the epaulets of old generals who have spent the last 33 years in barracks maintaining the organization of the army under the severest militaryism. In the course of the war of the Rebellion, the Boer war, and the Spanish-American war, these old barrack militaryists having become victims of militaryism must need be relieved by those generals coming from the volunteer ranks before it became possible for a victory to appear.

The Ecclesiastic college is forced to mural piles by the retention in the chairs of its faculty of old superannuated ministers

who still cling to their rigid ideas of religious obligation, moral conduct, and a psychology which must conform to orthodoxy, while their neighbors pass them by with banners floating over long lists of matriculates labeled with mottos indicating the physical body to be liberated by a recognition of college athletics, their minds to be emancipated by a liberal franchise which licensed individual thinking.

Many a prosperous and progressive industry has dwindled into an "Old Curiosity Shop" because one "Old Man" under the dominance of his convictions believed his shop produced the only thing of the kind, and it was needless for patrons to look elsewhere. So it is with those who spend their lives in the narrow environments of pent-up institutions, unless from their battlements they frequently take a view and note what is going on about them. There are executives who have remained so long in institutions that few signs of modern activity present themselves in the workings of the place, and a visit to them reminds one of a sojourn among the cave dwellers. The personnel of the place is composed of those so long in service that it is suggestive of an antiquarium into whose occupants a little breath has been breathed. Everything partakes of, and seems to obtain, its existence from the *l'odeur de renferme* permeating every nook and corner. Such an executive is found to be one of those thoroughly satisfied with himself and the work he has accomplished. Suggestions of innovation are distasteful to him, for he himself is the only source of all that is new. His experience entitles him to speak *ex cathedra*, and from him alone is it possible for anything novel to originate.

The institutional nurse every medical man will recognize. It does not require the stiff routine duties of the institution to create her. She thrives in the sunshine of the outer world as well as beneath the shade of the palatial hospital. She has pursued her duties so long the same way, day in and day out, month after month, and year after year, she has become a true automaton. Not so faithful as the automaton which we have alluded to, and which does the same thing in the same way with unswerving fidelity. The institutional nurse seeks to do the same thing with a constant eye to lessening the amount of energizing. Here in-

terest, fidelity, sympathy, kindness, effort to heighten in versatility, are eliminated factors, and the degree of reflection remaining is utilized in seeking to meet the requisites with the least effort possible. When unobserved she reads the news, writes her letters, arranges her toilet and entertains her friends. It does not occur to her that her patients might be made more comfortable by an extra warm cloth, poultice or application of some kind. It must be feared that the exalted idea of the humane nurse has been sacrificed to too much professionalism. Has not the assiduity with which the temperatures are registered taken the place of comforting applications? No doubt when duties confine the individual to narrow channels and specific limits, the routinist may be most advantageous, inasmuch as the nearer he approaches the functions of a mechanism, the more accurate and the more to be relied upon he is. But where the work to be done is not only routine but diversified, admitting of a breadth of usefulness, automatism should not be taken on to the sacrifice of a broader utility.

Inmates may partake of the abuse of institutionalism. The good care and treatment afforded them, in that they find themselves well housed, bedded and fed, tends to contentment in their situation. In this feeling of ease they seem to lose their ambition to longer bear responsibilities. They feel out of touch with the world and incapacitated for facing the vicissitudes of life. Thus many are content to settle down and give an easy concession to the doleful institutional life. This circumstance is a fruitful source of our frequently overcrowded eleemosynary institutions. Is it not noticeable with what ease it is possible to fill any charitable institution, special or general, with inmates? There is a prompt willingness on the part of the public to relinquish the responsibility of the care of their relatives to others. After this charge has been assumed how difficult it is to be again relieved of it. This is a phase of institutionalism which ought to be contended against by those having authority to do so. The writer veritably believes it is possible to immediately fill free institutions in any community as rapidly as it may be able to build them. Would not some degree of conservatism be advisable in the question of building homes for able-bodied de-



pendents? There are a thousand species of the genus institutionalism, and time and space forbid mention of the whole category. Institutionalism is a thing of such mien that "to be hated needs but to be seen." It is just as offensive to the one under whose notice it may come as an observer, as it is to the one who is made to feel its constant presence. It is really a disease of organization wherever found. Having once taken root it spreads its infection broadcast. All new elements breathe in, as it were, its lethal influence, and ere long take on all the characteristics of the genus. Once pervading the organization it permeates every fiber of it until it destroys every particle of the life elements of which it was composed. Truly over the portals of every place where it holds sway might be fitly inscribed "beware of all hope, ye who enter here," for every spark of love, sympathy, charity, and kindness has been snuffed out, every measure of ambition blighted, and every incentive to innovation is smothered. The query naturally arises, What are the measures for embetterment? Two are suggested: That of cure where it already exists, and that of prevention. In the first instance the radical cure is to be given preference, for by it you eliminate every nidus of infection. In its stead new tissue should be engrafted that it might light up a new center from which fresh functionizing might go forth. Through the process of eliminating, the incompetent and superannuated of the army and navy of the nations, and the great corporations in industry are perpetuated.

The preventive measures for embetterment above every other are to be advocated and kept in mind. These are not to be found in the character of the structure, whether it be Greek, Roman, renaissance, or colonial. Not in the plan whether aggregate or segregate. Nor are rules, regulations or completeness of system to be depended upon as prophylactics. We believe it is, however, to be found in the *individual equation* which goes to make up the warp and woof of the fabric of organization. Every individual as a factor of the fabric, whose duties bring him in close relation with the human organism, has an opportunity to bring into active use every faculty with which the brain of man is endowed. As the musician employs the

different notes in the execution of a sonata or symphony, so should all the mind's attributes be of such a quality as to be capable of being used to the best advantage to the organization and its purposes.

The work of the institutionalist then admits of the broadest culture. He should glean here, there, and everywhere for those things which mark progress and are the result of men's best thought and ingenuity to the end that it may render his labors of the widest possible usefulness.

## THE ADVANTAGES OF CIVIL SERVICE PRINCIPLES IN THE CONDUCT OF STATE HOSPITALS FOR THE INSANE.

BY GERSHOM M. HILL, M.D., Superintendent of the Hospital for the Insane at Independence, Iowa.

Iowa was transformed from a territory into a state in 1846, but one of its penitentiaries was established as early as 1839.

The first hospital for the insane was opened in 1860, the second in 1873, the third in 1888, and the fourth will be ready for occupancy some time next year. Thus, in this growing state, the institutions, penal, correctional, charitable, and educational, were provided from time to time as needed. Laws for the government of these various institutions were inserted into the code of Iowa according to the fancy and judgment of different sets of law-makers.

Iowa, following the custom of the eastern states, placed each institution in the care of a separate board of trustees. They were not appointed by the governor, nor nominated by him, but were elected by the legislature in a joint convention of the senate and the house of representatives. The dominant political party conceded to the other about one-third of these offices. The legislature convenes once in two years. Each hospital for the insane had five trustees, whose term of office was four years. Three were elected by one legislature and two by the next. Many of these trustees were reelected, so that they continued in office for eight years. The governor of the state was expected to visit the state institutions, to make recommendations to trustees and to the legislature concerning them, but had no authority in their management.

Since the trustees were not all elected at the same time and since there were five of them, the conditions in the institutions were not much affected by political changes. In fact the Republican party has been constantly in power in Iowa for a long time, and it is to be said to its credit that it did not undertake to fill the positions in the institutions with Republicans.

<sup>1</sup> Read before the American Academy of Medicine, St. Paul, June 3, 1901.

The superintendents of the hospitals for the insane were elected by the trustees for a term of six years. The assistant physicians, the steward and the matron were nominated by the superintendent and elected annually by the trustees. All the employees were selected by the superintendent and dispensed with at his pleasure.

The trustees of the hospitals in Iowa never urged the superintendents to give employment to their relatives or to her friends or to political hangers-on. Consequently, any officer or employee named on the pay-roll of the institution could be summarily discharged without fear of incurring the displeasure of the men who elect the superintendent and upon whom he must depend for approval. Complaints made by discharged employees were not encouraged by any of the trustees. Superintendents were inclined to confide in the trustees, one of whom resided in the town where the institution is located ; he sought their advice on perplexing questions, he was cheered and encouraged by their cooperation.

Iowa never had a board of state charities to inspect her institutions, but for twenty-five years she had a "Visiting Committee" for the state hospitals for the insane, composed of three persons, two men and one woman, appointed by the governor, who continued in office until removed by him. It was the duty of this committee, singly or otherwise, to visit each hospital every month, to see that the patients were kindly treated by the attendants and suitably cared for in all respects. They came without giving notice and visited the patients in the wards without being attended by an officer of the hospital. This committee made suggestions to the superintendent or to the trustees, and they made a report of the condition of the hospitals to the governor, which was published for the benefit of the legislature and the information of the public. Investigations were occasionally made by this committee. As compensation, this committee, like the trustees, received a per diem of four dollars besides expenses.

Governor Carpenter, in his message to the General Assembly in 1876, recommended that all the state institutions be placed in the care of one board of control. He believed that reform in the

Iowa method of management was needed ; that there was too much " log rolling " in the legislature to secure large appropriations ; that trustees were selected in a more or less haphazard manner ; that the institutions should be made more uniform in character and in conduct.

Horace Boies, the only Democratic governor Iowa has had in a great many years, in 1892 and again in 1894, urged with all possible emphasis, that the state institutions should be put into the hands of a central non-partisan board of control. His reasons for such a radical change were to increase the efficiency in the management of the institutions, and, at the same time, secure much greater economy in administration. Although Governor Jackson did not favor such a change in the management of the Iowa institutions, nevertheless the legislature in 1896 appointed a committee, consisting of one senator and two representatives, to visit all the institutions, examine the accounts, learn the business methods used in them, and make a report to the next meeting of the General Assembly. As a result, the Board of Control of State Institutions Act was passed in 1898, dispensing with the Visiting Committee and with the trustees in all of the institutions, except the state university, the agricultural college, and the normal school, and placing the management of four hospitals for the insane, two penitentiaries, two reform schools, the orphans' home, the soldiers' home, the institution for the deaf, the college for the blind, an industrial home for the blind, and the institution for feeble-minded children, all in the exclusive care of the board of control. This board is non-partisan and composed of three men, nominated and, with the consent of two-thirds of the senate in executive session, appointed by the governor to serve six years, one to go out of office every two years, and the one whose term first expires serves as chairman. The salary is \$3,000 and expenses, and exclusive attention to institution work is required. New books for records and for accounts were introduced into all the institutions. They are systematic and as uniform as possible. The accounts are kept in the most modern and complete manner.

Estimates on pay-roll and other expenses are made by heads of institutions and approved by the board. Storekeepers' books

are used and all supplies are issued on requisitions. The goods needed are purchased on competitive bids, and tests are made to determine the quality of coal, coffee, tea, and various other provisions. The salary of the chief executive officer is fixed by law, but the board determines the wages of the other officers and employees by a schedule which is uniform for all the hospitals for the insane. Since the hospitals vary in capacity, in the arrangement of quarters and of work, this schedule of wages is made somewhat elastic; for example, one-third of the income of the hospital is put into the pay-roll and each institution can have employees equal in number to one-sixth the whole number of patients. Besides the board of control fixes the maximum pay for persons working in this department or in that, but the superintendent is expected to secure help at as reasonable prices as possible. Wages are raised from time to time according to skill and length of service.

The superintendent, who is also called the chief executive officer of the hospital, is elected by the board for a term of four years and is the only person who is accountable in any way to the board of control. He selects his associate officers, all employees, and can at pleasure discharge any or all of them for disobedience, disloyalty, unfitness, inefficiency, or immoral conduct. The board may find fault with the condition of things and suggest improvements, but the superintendent is the one to apply the remedies and to secure the results desired. The board is careful not to destroy personality in hospital work, nor to interfere with the use of different methods of managing and of treating patients.

The new law provides for a conference of the heads of the various institutions to be held every three months in the rooms of the board of control, at which scientific papers are read and methods of administration are discussed. A quarterly bulletin is published containing these papers and the substance of the discussions; besides, this periodical contains contributions from other institution men in Iowa and in other states.

The law states concerning the duties of the board: "It shall encourage and urge the scientific investigation of the treatment of insanity and epilepsy by the medical staffs of the insane hos-

pitals and the institution for the feeble-minded and shall publish reports of the scientific and clinical work now done in said institutions or which the board may require to be done therein." For example, the hospital which I represent has a good-sized and well-equipped laboratory in which all of the assistant physicians examine specimens for diagnostic purposes and in which one of them is engaged almost exclusively in pathologic study. Post-mortem examinations are seldom omitted, so that insanity is carefully studied by the members of the staff, both clinically and pathologically. A complete record of each patient is typewritten, giving family history, events affecting health or character of patient, physical examination, mental examination, cause of insanity, the diagnosis and the prognosis in each case, clinical notes are added from time to time, and, in case of death, records are made of the findings in the post-mortem room and in the laboratory.

The training schools for attendants and nurses, which had been established in the Iowa hospitals while they were in the care of trustees, have been unified and encouraged by the board of control. Although uniforms were formerly worn by nurses, especially graduates of the schools, now they are required for all officers and employees; besides, they are alike in all the hospitals.

The food is good and equal in quality in all of the state institutions, and even in the penitentiaries it is much better than formerly.

The new law requires that a time-book be kept and posted daily, showing exactly when and how many hours each officer and each employee works. The pay-roll must correspond with the time-book.

Good salaries and wages are paid, but no annual vacations are granted without loss of time on the pay-roll. No perquisites of any kind are permissible.

In making out vouchers for traveling expenses "a minutely itemized statement of every item of expenditure shall be presented to the proper authority, duly verified, which verification shall aver that the expense bill is just, accurate, and true, and is claimed for cash expenditures or cash disbursements, truly and actually made and paid to the parties named, as shown by said statement."

In visiting state institutions or county asylums, by members of the board or their agents, the trips are to be made "by the nearest traveled and practicable route. No expenditure for traveling expenses to other states shall be made by the board or by any officer or agent thereof, or by any officer, employee or agent of any state institution subject to this board, unless the authority to make such trip is granted at a meeting of the board of control upon a written resolution, adopted by the board, which shall state the purpose of such trip, and the reason the same is deemed necessary. Said resolution, if adopted, shall then be submitted to the governor for his written approval, and if he does not approve the same, such trip shall not be made at the expense of the state." It is the duty of the board of control, or a committee thereof, to visit all the institutions placed in its care at least once in six months, but the hospitals for the insane must be visited every month.

"The board, or any member thereof, at the stated visits to any institution under its control shall inspect every part of each institution, and all the places, buildings and grounds belonging thereto, or used in connection therewith. They shall make an examination of the general and special dietary, the stores, and methods of supply, as far as circumstances may permit, they shall see every inmate of the soldiers' home, and the charitable institutions, especially those admitted since the preceding visit, and shall give such as may require it, suitable opportunity to converse with the members of the board apart from the officers and attendants. They shall, if deemed necessary, examine under oath the officers, attendants, guards, and other employees, and make such inquiries as will determine their fitness for their respective duties.

"The board shall keep in its office, accessible only to the members, secretary, and proper clerks, except by consent of the board, or on the order of a judge or court of record, a record showing the residence, sex, age, nativity, occupation, civil condition, and date of entrance or commitment of every person, patient, inmate, or convict in the several institutions governed by the board, the date of discharge of every such person from the institution, and whether such discharge was final, and the con-



dition of the person at the time he left the institution. The record shall also indicate if a person is transferred from one institution to another, and to what institution ; and if dead, the date and cause of death. This information shall be furnished to the board by the several institutions, and such other obtainable facts as the board may from time to time require. It is the duty of a managing officer of each institution, within 10 days after the commitment or entrance of a person, patient, inmate or convict to the institution, to cause a true copy of his entrance record to be made and forwarded to the office of the board of control. When a patient or inmate leaves, or is discharged, transferred, or dies in any institution, the superintendent or person in charge shall, within 10 days thereafter, send such information to the office of the board, all of which information shall be furnished on forms which the board may prescribe."

It was made the duty of the board to appoint the superintendent or other chief executive officer of each institution within its control, but it is made a misdemeanor for members of the board or any officer thereof to exert any influence by solicitation or otherwise, on the managing officers of an institution in the selection of an assistant or employee.

The act and subsequent amendments provide that any member, officer, or employee of the board, or any officer or employee of a state institution subject to the board, who shall, by solicitation or otherwise, exert his influence, directly or indirectly, to induce other officers or employees of the state to adopt his political views or to favor any political person or candidate for office, or who shall in any manner contribute money or other things of value to any person for election purposes shall be removed from office. It is also made a misdemeanor for any person to demand or solicit from any member, officer, or employee of any state institution subject to the board, any contribution of money or other things of value for election purposes, or for the payment of the expenses of any political committee or organization.

The object of these various provisions was, it is clear, to make the board of control, and the various state institutions within its jurisdiction thoroughly non-partisan, in order that the service to be rendered in those institutions shall be the best for the legiti-

mate purposes of the institutions which can be obtained. It was, in effect, a recognition of the fact that the average employee cannot be expected to serve with equal fidelity and efficiency two masters whose interests are conflicting; that when required to serve such masters he will labor most earnestly to promote the interests and thus retain the good will of the one upon whom his tenure of office depends, even though that one be a mere political machine or agency, and that the best service can only be obtained by taking from the employee all inducement to serve any one but the state, and making his tenure of office to depend solely upon his personal character and the efficiency with which he performs his official duties.

Partisan tendencies are most marked when two political parties are so nearly equal in numbers that every resource must be used in order to win.

The civil service principles now practised in the state institutions of Iowa afford complete freedom from, and independence of, political influence. They promote the cooperation and unity of the institutions under the management of the board of control.

Since the superintendent of the hospital selects his associates in an untrammelled manner, he is, of course, inclined to call to his assistance such persons as in his judgment are best adapted to hospital work. The board of control and the superintendents of the hospitals are inclined to employ residents of the state of Iowa as far as possible, but may obtain help from other states, even from other countries, when the welfare of the institutions makes it seem a plain duty to do so.

In systematizing the work in a hospital the tendency is to divide it into departments, such as the medical department, the financial department, the supervisory department, the industrial department, the agricultural department, the engineer's department, the culinary department, the domestic department, and the laundry department, then to select persons adapted to each kind of work, train them for promotion in each of these departments, and thus make experts of them.

In the medical department the assistant physicians are promoted in regular order if they are fit for promotion. When a new superintendent of a hospital for the insane is required, if none of

the assistant physicians of that particular hospital is qualified to fill this administrative position, then the propriety of electing an assistant physician from the staff of either of the other hospitals for the insane in the state is considered. Again, an assistant physician in one hospital may be transferred to the medical staff of another hospital, provided that by so doing he is placed in a higher rank than before.

The state hospitals in Iowa and the institution for feeble-minded children have training schools for nurses. In fact not only are the nurses being trained from month to month and year to year, but the assistant physicians are also being trained for the duties peculiar to their work. The motto in each and every institution and in each and every department is merit. Natural fitness and demonstrated efficiency are the criteria which determine the question of selecting, retaining, and promoting employees, thus increasing their wages.

In a large hospital containing 1,000 beds for patients and a payroll numbering 150 or 175 persons, if not disturbed by extraneous influences, if well equipped and well managed, and if located in an agricultural state like Iowa, where chances for various kinds of employment for young people at good wages are not near at hand, it is not necessary nor desirable, to any considerable extent, to employ persons who have been trained in other hospitals for the insane. It may be an advantage to employ an assistant physician who has served as an interne in a general hospital, or to employ a nurse who has had the advantages of training in the school of a large *general* hospital, or to employ a mechanic or a head cook who has been well trained elsewhere, but most of the young physicians and a great majority of the nurses and the attendants can be sufficiently and satisfactorily trained in the institution which they enter without experience.

My understanding of the topic under discussion is that civil service principles, when wisely and honestly practised, cause a hospital to become more and more scientific in character and in the work accomplished by it. The judicious and persistent practice of civil service principles tends towards perfection and secures the highest degree of efficiency possible in any human undertaking where the services of a large number of employees are required.

## HOSPITAL MISMANAGEMENT.<sup>1</sup>

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EVILS IN SOME ASYLUMS, HOSPITALS, INFIRMARIES, AND TRAINING SCHOOLS FOR NURSES, THAT MIGHT BE AVOIDED BY PLACING THEM UNDER CIVIL SERVICE RULES; AND BY PROPER REQUIREMENTS, REGULATIONS, AND INSPECTIONS ON THE PART OF A PROPERLY CONSTITUTED AND AUTHORIZED BOARD OF HEALTH IN EACH STATE.

BY A. GOLDSPOHN, M.S., M.D., Chicago, Ill., Professor of Gynecology, Post-Graduate Medical School; Attending Gynecologist to the German, the Post-Graduate, and the Charity Hospitals of Chicago.

Many of these public and private incorporated institutions fail to achieve their intended degree of usefulness. In a few instances this is because those men who founded them were more ambitious and charitably disposed than they were wise. Their intentions were good, but their knowledge of the amount of material requirements and of the quality of intellectual or scientific medical service that are needed to found, organize, and conduct such an enterprise, was too sadly defective. Such institutions, especially when they were begun without an adequate amount of funds at hand or in sight, usually eke out an existence by violent economy that has little regard for important sanitary appliances and provisions, and does injustice alike to its appointees and to the patients whom they pretend to take care of.

The importance of these institutions for the care of many of the sick in all grades of society, and in various stations of life, is something that the laity can comprehend and appreciate, and therefore they bestow of their means quite freely for the construction of the grosser material parts of such institutions. But they do not comprehend nor appreciate the importance of costly equipped and superintended scientific laboratories that are needed quite as much in order to develop properly trained medical men, with which to man their institutions, in order to make them properly effective, so that they may yield a proportionate service in return for the amount of material investment involved. For

<sup>1</sup> Read before the American Academy of Medicine, St. Paul, June 3, 1901.

this reason, and also because they do not carefully enough elect the best men that are available, many of their favored institutions fall far short of their proper degree of utility.

While the laity furnish the means, indeed, quite liberally in many states, either directly or through their political representatives in county or state governments, for founding and maintaining the material parts of asylums, infirmaries, and hospitals, together with their training schools for nurses, they make the very serious mistake oftentimes of also wanting to manage such institutions themselves too largely, without knowing that they are utterly incompetent to do it. They appoint medical men without knowing that they cannot expect to be able from their purely individual experience to judge of the relative professional attainments and merits of such men without the advice or guidance of some unbiased and unselfish medical tribunal, such as a generally recognized and creditable medical society. Such exercising of laymen's judgment of medical men and medical things results not infrequently in the appointment of inferior men to important positions, in which other available and superior (but perhaps less ostentatious) men would have developed a much greater harvest of general good to the institutions, and their inmates, without greater, or with even smaller, expenditures. This evil of inferior appointments, which is due not to dishonesty, but to ignorance and self-conceit on the part of the business management of such institutions, is common to both public (political) and private or denominational enterprises. It is not of so serious a nature. But a much more serious evil is added to this in our institutions of this kind that stand under political management. Every few years, when another political party gains the ascendancy, and its candidates take control of the state or county government, they regard it as their undisputed privileges to displace any or all medical or other well trained and qualified appointees in public medical institutions, by others of their own following and favoritism, without any serious regard for the strictly professional merits and deserts of either the parties removed or of those appointed—aside from their political fervor and elastic conscience.

Now, inasmuch as the better class of truly able medical men—

those who do not so much seek positions as wait to be sought by them—are not usually disposed to descend into the mire of politics, and are not given to cultivating familiarity and prestige among politicians, therefore the latter usually pass them by, ignorantly or otherwise, when desirable or important positions are to be filled ; and medical factotums of doubtful weight are apt to be chosen, whose ignorance and inactivity in progressive medical knowledge and research give them time and taste for political machinations and spoils. And the evils which arise from the consequent mediocrity or incompetency at the helm of our public medical institutions are not avoidable under present conditions, because good men will not accept the situations if offered to them, because the extremely uncertain tenure of service incident to the capricious changes in the political atmosphere, and the prevalent lack of appreciation of true ability and faithful medical service, effectually exclude the men who would be likely to develop many of these institutions into what they should be, and which would make them yield a reasonably proportionate amount of good from the large sums of money which they now consume with a minimum yield of service. Space does not permit here a fuller consideration of the great losses that medical men and the general public sustain from the government of many of our medical institutions exclusively by laymen, and particularly political laymen. The prostitution of the Goddess of Medicine to the demons of politics is a plague spot on the face of our liberty and republican government.

These evils could, in my opinion, be mostly overcome by placing all these public and private incorporated medical institutions and their individual managers and principal appointees under a state medical civil service board, which should either make or direct the appointment of every medical director, superintendent, every chief member of any medical staff, and all matrons of training schools. If the consideration of so many individual persons as candidates for such appointments should be too cumbersome, then such a state medical tribunal could at least formulate and enforce specific requirements and standards for such appointments, and it could secure general efficiency of service by annual inspections of each institution, and its superior

appointees, for which each institution might be made to bear the expense. In order to divest such a state medical civil service board as much as possible of politics, each of its members should probably serve for a longer time than do governors of states, state legislators, and county commissioners ; and the tenure of office of never more than one should expire at the same time. Possibly with additional jurisdiction, duties, and emoluments, the state board of health in each state could serve also as such a state medical civil service tribunal.

Incorporated private or denominational hospitals, infirmaries and training schools, not receiving financial support from state or county governments, are dependent, often to a large extent, upon charitable contributions and bequests. And in order to appeal more successfully to public confidence, favor and patronage, they require to have a local board or directory of influential and honorable business men. But some statutory requirement should secure the appointment of at least one experienced medical man in good professional standing to every two laymen upon such board, in order to avoid evils of exclusively lay management, that can be met frequently. For instance, in the effort to economize, some very unjust and even foolish things are done, in the absence of specific and obligatory standards, when an exclusively laymen business management is not guided or tempered by medical opinion or consent. Instances of such mistakes that I have most frequently observed are the following :

Furnishing an inferior, or a positively bad, grade of general supplies, or permitting violations of common sanitary regulations and serious defects of important apparatus and appliances, so that every patient and doctor would realize it, and subsequently improve every opportunity to warn others from going there.

Then, engaging a cheap and pliable matron, ostensibly to be responsible for the conduct, training, and efficiency of the entire household of nurses—who either was unable to teach, govern, and discipline them, or was not given a proper opportunity and jurisdiction to do this, by a conceited, officious, and obtrusive layman superintendent, who attempted, in part, to discharge these distinctly feminine functions for the matron, and put the higher salary therefore, into his own pocket.

Again: In some training schools that are chiefly under lay control, a gross injustice is done by inviting some inoffensive but grossly incompetent girls to aspire for the position of a trained professional nurse, who must inevitably be doomed to bitter and pitiable disappointment when, after several years of hard, gratuitous toil, and sometimes decided impairment of health, they find that no one who knows them, wants their services. This results most frequently where such business men figure out the present financial advantage to themselves of demanding three instead of two years of training of nurses, and then accept an inferior grade of applicants who are rejected by the two-year training schools where only the best qualified applicants are accepted, irrespective of temporary financial considerations.

In my experience, the wrongs to physicians from excessive or indiscriminate charitable treatment of unworthy subjects, who are not outdoor or dispensary cases, are mostly avoided when the hospital honestly informs such patients of the correct attitude which the hospital and its physicians, independently, bear to the patient. That its physicians have agreed to treat actually poor patients gratuitously, and to adjust their fees in other instances to the patient's financial ability; but that the doctor himself only can decide what, if anything, shall be his financial remuneration, that the hospital in no case can contract for free medical or surgical treatment. All this is substantially accomplished by stating plainly on all its bills for its own services that payment for medical services is not included.

#### CONCLUSIONS.

1. A crying need of our time is the emancipation of all our public (governmental) medical institutions from politics. The appointment of all directors, superintendents, and chief physicians in these institutions should be made by a non-partisan state medical civil service commission or board of health, either directly or strictly according to the recommendations of such a commission. And their tenure of service should be determined by their efficiency.

2. A charter from the state, or a license from a local board of



health, or both, should be obtainable by the promoters of all private asylums, hospitals, infirmaries, and training schools for nurses, *only after* the general feasibility and probable success of the proposed undertaking have been considered and adjudged favorably by a supervising state medical commission, such as is herein contemplated.

3. Every such institution should be constructed, organized, and conducted according to specific statutory standards and requirements, to be formulated by the aforesaid board or commission.

4. No superintendent or matron in any such institution should be eligible for appointment for such a position, unless he or she has given evidence of sufficient general and medical capability to the supervising state board of health, and has been registered by it in the manner that physicians and druggists are now.

5. The charter or license of each of these institutions should provide that no member of its active or consulting medical staff can be appointed by a layman, or by an aggregation of laymen, except upon the recommendation of each candidate by a generally recognized and creditable local medical society that is acceptable to both the supervising state board and to the parties desiring to make medical appointments.

6. Furthermore, the charter or license in each case should provide that the institution shall pay an annual reasonable fee for a yearly inspection by a member or a representative of the state supervising board of health, and should receive a certificate therefor.

## HOSPITALS AND SANATORIA FOUNDED, OWNED AND CONTROLLED BY THE MEDICAL PRO- FESSION—A CASE IN HAND.<sup>1</sup>

BY H. BEAT. ELLIS, M.D., Los Angeles, California.

Since hospitals were first established, their erection, control and management have been variously exercised. We may put them into three broad classifications: first, charity hospitals, where none but the poor are admitted; second, private hospitals, for pay patients; third, mixed, semi-religio-charitable institutions in which there are a few free beds, but where a great aim is to secure as many pay patients as possible.

The first class, in this country, are political institutions; councilmen in the cities, a board of supervisors in the counties, and the governor with his advisers in the various states, control the erection, the equipment, and practically the service at these institutions. Positions on the staff of these hospitals are obtained largely as rewards for services rendered, or by political pull; this does not of necessity mean that incompetents always have charge, for the reverse is usually the case, but the service is always hampered by the outside political influence which has gained the position.

The second class have ordinarily been small institutions under the control of some one surgeon or practitioner whose business is sufficiently large to demand a place where he can have his patients under his personal supervision. These hospitals are not ordinarily profitable institutions, in so far as the institutions themselves are concerned, because the physician's time is so occupied with his medical or surgical work that he is quite unable to attend to the business details, cutting off expenses here and stopping leakages there, and so profits are lost.

The third class covers a good many institutions, denominational and society hospitals and quasi charitable institutions. These places are ordinarily absolutely under the control of a board of managers, which is sometimes a mixed board, the women predominating, or completely composed of women; and

<sup>1</sup> Read before the American Academy of Medicine, St. Paul, June 3, 1901.

the medical and surgical staff owe their appointment to this board, and while it may not always be possible to remove the entire staff before a certain definite time after their appointment, still the individual members may be so hampered in their work that their services are unsatisfactory. These institutions are run with the idea of making money; however, it is not the profession that reaps the benefit, but the board of managers. When the idea of charity is mixed in a hospital with the plan of obtaining as much money as possible from some patients, where bigotry is a factor in the admittance and retention of patients, there of necessity we find constant wrangling on the boards, especially where the boards are mixed; and there too, will grow constantly increasing dissatisfaction among the practitioners in attendance.

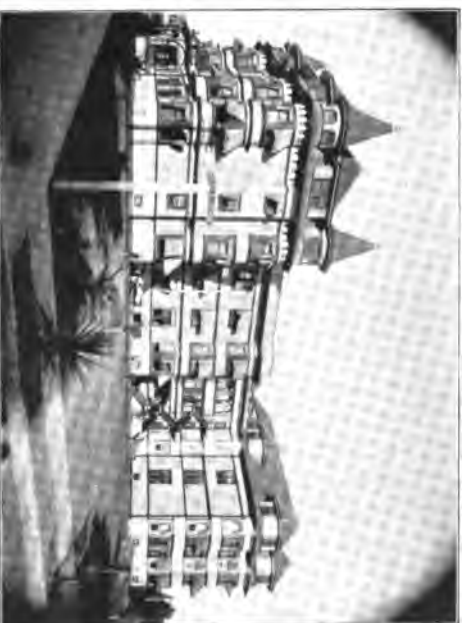
These facts led a number of physicians of Southern California a few years ago to plan out a hospital to be run on other lines, and they have solved a problem which may possibly have been solved by physicians in other places, but if so the writer is not acquainted with the facts.

In 1897 some twenty well-known practitioners of Los Angeles organized themselves into a corporation known as the "California Hospital Company;" they elected a board of five directors; this board met and organized, appointed one of its members secretary and manager, and two other members to act with him as a Building Committee; they bought 100 feet frontage with a depth of 185½ feet, to an alley, in an eligible part of the city of Los Angeles; and at once erected a sunny, well ventilated building of fifty rooms, built as desired, equipped according to modern ideas and without undue extravagance; within six months it was seen that additional room was needed, and a four-story annex of forty rooms, connected with the original building by glass enclosed porches which serve as solariums, was next erected; the board seeing that more room would be needed purchased additional land until the hospital owns a corner fronting 323 feet on one street and 185½ feet on another, with an alley in the rear. This property is conveniently located to car lines, that is, within a block of two systems. This hospital was filled within three weeks after it was opened; there has not been a month since it was erected but what it has made a fair interest

on the investment, and during some months numbers of the employees have found it necessary to give up their rooms to patients. Each patient selects any reputable physician and pays him for his services, the hospital as an institution having nothing to do with the medical or surgical treatment; every physician prescribes for, or operates on, his patients as though he or she were in his or her own home, and the prescriptions are sent to any drug store that may be selected by either patient or prescriber, and the bill is collected of the patient independently of the hospital bill; in other words, the hospital only furnishes board, room, operating room and nursing. Each surgeon supplies his own instruments for his own operations; the hospital carries surgical dressings and these are charged to the patient extra according to the quantity used. The institution has three operating rooms and by a little management on the part of the hospital authorities, and a little good-natured yielding on the part of the operators, there is ordinarily very little conflict in regard to hours for operations. An average of thirty-five physicians attend patients in this hospital daily and in so far as the writer's knowledge goes there has never yet been any friction nor heart-burning among them. Every year a competitive examination is held for an internship and the interne lives in the hospital and serves as an assistant and resident physician so as to be able to cope with emergencies which may arise in the absence of attending physicians.

Connected with the hospital is a training school for nurses of whom there are about forty in the various classes; the nursing is in charge of a superintendent of nurses and five graduate head nurses; and there is on an average six other graduate nurses employed in the hospital.

The absolute management is vested in a board of nine directors, elected annually from among the stockholders. None but active practitioners may buy stock from the company, and should any be sold to laymen the by-laws prevent any but physicians in active practice from being elected to the Board of Directors. From our experience we would commend this plan to our eastern confrères for the following reasons: First, the construction of the building is entirely in accord with the desires of the physicians;



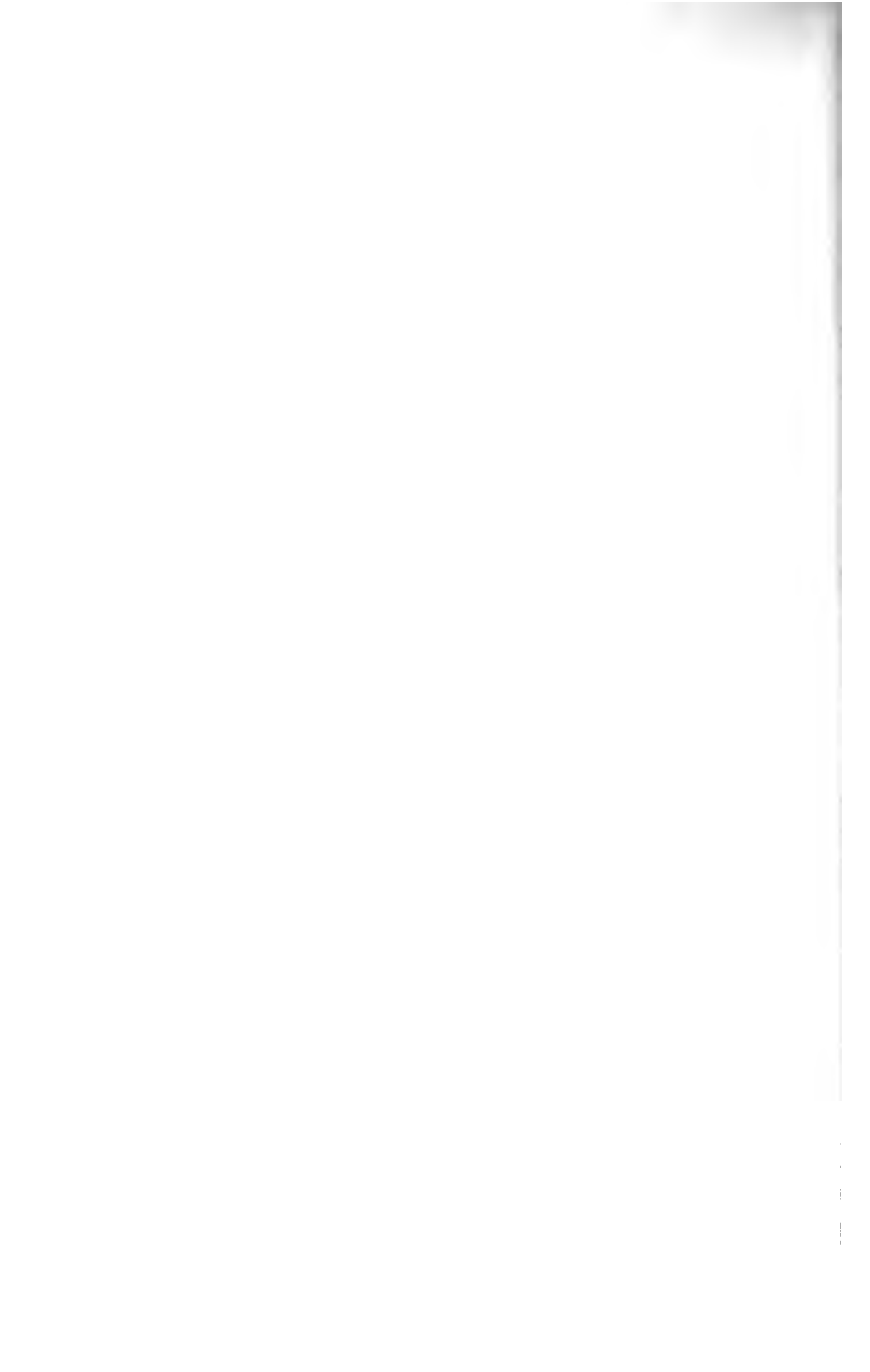
THE CALIFORNIA HOSPITAL.



THE IDYLLWILD.



THE IDYLLWILD.



second, the hospital service is in accordance with their wishes and not to please a board of women managers; third, the patients realize that they are in a hospital controlled and partially owned by their own physician, and therefore feel more of a confidence than they would or could in a semipublic institution; fourth, whatever profits there may be from the hospital go to the physicians themselves and so enable the physicians to make safe investments of their hard-earned savings.

California has for a long time been favorably known for its mild climates and many patients have been sent from the eastern states on account of lung or other troubles for the benefits that may be derived from an outdoor life. More frequently than otherwise these patients have come without further instructions than to go to Santa Barbara, San Diego, Redlands, Pasadena or Los Angeles. Not frequently have they been referred to any particular physician, and these patients have come and gone to such hotels or lodging houses as chance or their means made possible. The local profession has for a long time felt the need of a suitable scientifically constructed and managed sanitarium for pulmonary cases of a certain class, and the success of the California hospital led them to consider the feasibility and desirability of a similar company organizing and carrying out the sanitarium work. A company was organized under the name of the "California Health Resort Company," capitalized for \$250,000.00, over two-fifths of which has been subscribed for by about fifty physicians, seven or eight prominent railroad men, and three or four practical hotel men. A Committee of Directors investigated the mountain country between Los Angeles and the Colorado desert, and finally purchased about 1575 acres of pine forest in what is known as "Strawberry Valley;" it has an altitude of 5250 feet and is in the center of a government forest reserve of 734,000 acres. The mountain on which this resort is situated runs out into the Colorado desert; there are three mountain streams running through the tract and numerous springs of pure mountain water. There have been erected on this tract a central building of fifty rooms and a number of three- to six-room cottages in its near vicinity, while one-third of a mile away is blocked out a village, Idyllwild by name, where 1000 people can

rent cottages or tents and live independent of the sanitarium. This much is ready for business and is open to the public this, the first day of June. The company has erected and owns its own electric light plant, steam laundry, water system, and a modern sanitary sewage system; it has its own store and livery stable and a club-house for indoor amusements. With this arrangement the management can equip little parties with burros, ponies, cooks, and camping facilities, enabling physicians to send their patients on camping trips through the pine forests and mountains in the vicinity.

Thus again a corporation of physicians, in a business way, has demonstrated that institutionalism is the best means for the medical profession to get what it desires for the accommodation of its patients; and it will also undoubtedly prove a very profitable investment and is another means of providing a safe place for the busy physician's funds. Too many doctors who do not have the time to really investigate and study financial situations simply trust their money in speculation to others with the result, in many cases, of losing it in stocks and boom real estate, but in this line of investment they can do an immense amount of good for their patients and feel that they have a safe place for the investment of funds for the benefit of their families. In the opinion of the writer it is as essential that the profession should control the hospitals and sanatoria as it is that they should control their medical journals, in order to keep them as free as possible from commercialism.



## INSTITUTIONALISM.<sup>1</sup>

JOHN CURWEN, A.M., M.D., Harrisburg, Pa.

As society is now organized, a necessity has arisen for the establishment of institutions for the different orders of the dependent class. While one individual will be disposed to render all the assistance which may be needed, two will pass by on the other side and be totally indifferent to the condition of any afflicted individual they may meet. As a distinguished alienist has expressed it: "The world is becoming more and more intolerant of the dependent or defective portion of its inhabitants and is more ready than ever to cast them aside and place them in retreats, homes, and asylums where they may be kindly and properly cared for."

From this feeling the necessity has arisen for the establishment of institutions for the care and comfort and proper treatment for the defective and dependent classes. Individuals of a benevolent disposition, anxious to relieve the distress they see around them, have combined and formed associations and provided the means to establish buildings for the care, treatment, and maintenance of a particular portion of the dependent class.

One class will take charge of the blind, another of the deaf and dumb, another of the imbecile and idiotic, and others of the other defectives. From the company thus formed a certain number will be selected who will have more immediate charge of the arrangements made for a particular class to which they have decided to devote their attention. Institutions have been established on this basis for the care of the insane, but they must confine their number to those who have the means to pay their expenses in the institution or they will be unable to meet the standard of treatment required unless charitable and benevolent individuals should assist them by voluntary contributions. The larger number of the insane must be supported by the state in institutions erected and organized by the authority of the state

<sup>1</sup> Read by title before the American Academy of Medicine, St. Paul, June 3, 1901. Dr. Curwen's decease (July 2, 1901) prevented his revision of the proof of this paper.

and the amount necessary for the maintenance must be appropriated from the treasury of the state and the number of the insane may be so great as to require several hospitals located in places most convenient of access in each section of the state.

Those who are to have charge of these state institutions must be selected by the highest officers of the state and they must select the medical officer who will have immediate charge of the medical department of the hospital. Too often the trustees are selected because of their performance of certain political favor.

Such being the conditions to be met the necessity is plain and positive that those who should have the care and direct management of such institutions should be animated by a high degree of the responsibility assumed by them and also a resolute and determined spirit, under all circumstances, encouraging or depressing, to discharge the duties devolved on them with special reference to the best interests of those committed to their care. This spirit may be denominated institutionalism and should always be exercised in its highest development in the effort and determination to make every thing about the institution the very best in every way and form so as to impress every one with the sentiment and feeling that nothing should be left undone to promote the best interest of all committed to the institution and to advance every part of the work to the highest point it may be possible to attain.

If such a spirit should possess the trustees they would give more earnest attention to all the duties assigned them. The medical officers would be led to such care and thoughtful attention in the discharge of their duties that their influence on the attendants and employees would lead them to do the best they could for those entrusted to their care. The community would feel that the affairs of the hospital were conducted in a spirit which would best promote the welfare of the patients.

## CARE OF EPILEPTICS IN MASSACHUSETTS.<sup>1</sup>

EVERETT FLOOD, M.D., Superintendent Massachusetts Hospital for Epileptics, Palmer, Mass.

The institution care of epileptics in Massachusetts began in 1881, under the advice of the late Dr. Ira Russell, of Winchendon, when the Hospital Cottages for Children was established at Baldwinville. This was the first institution, so far as I have been able to learn, established in this country with the especial design of caring for epileptic children. The number cared for has steadily increased until now something more than 100 such persons under 14 years of age are housed, while a few orthopedic cases are cared for in the same institution. The whole number of epileptic children that has been treated at Baldwinville is in the neighborhood of 600. There have been in Massachusetts two or three other private establishments where epileptic persons have been taken in the family of the physician and kept under observation and treatment. The number of such private places has always been small and owing to the difficulty of dealing with this habitually discontented class, it does not seem likely to increase.

The Massachusetts Hospital for Epileptics was established by an Act of the Legislature in 1895. The buildings were erected on the site of the State Primary School at Monson, for the accommodation of about 100 men and the same number of women. In 1899 and 1900 further buildings were constructed so that the total number treated is about 400. These buildings are on the cottage plan, separated by a number of hundred feet from each other and yet not too far apart to be served by a central heating plant.

The buildings for the accommodation of patients are all brick except two cottages which are old buildings remodeled. One of these cottages is on a distant hill about a mile from the main institution and is, of course, separated from the common supply of heat and water. It is, however, beautifully located and will serve as a nucleus for a farm or colony group, while the question

<sup>1</sup> Read by title before the American Academy of Medicine, St. Paul, June 3, 1901.

of water supply and drainage can be conveniently handled. In the main group the water supply is abundant and of the very best quality, giving a pressure of 100 pounds at the boiler-house.

The sewage system is very satisfactory and is so arranged that additions and extensions may be made with economy and efficiency.

It is estimated that there are at least 1200 institution cases available when accommodation can be provided for them. About one-half of all the cases will be classed as insane, while the larger portion of the other half are practically insane a large part of the year. It is the plan to provide congenial surroundings and hope-inspiring treatment for such other cases of epileptics as may apply for admission. It is known that there are several hundred such cases as these, very many of them now without satisfactory homes.

The institution as it stands at present has one general laundry for all purposes, a bakery supplying the whole institution, two small kitchens besides the administration building kitchen and one large general kitchen. Each of the small kitchens cares for a group of about 100 patients in four dining-rooms, while the large kitchen is in connection with a congregate dining-room in which 200 persons can be comfortably seated.

A boot and shoe manufactory is worked to advantage with the patients' labor. A large portion of all the footwear is here made, and all cobbling is done in this shop. A large workroom covering an area of 6000 square feet and serving the double purpose of industrial room and assembly room, is also provided. The patients are housed largely in dormitories caring for from 3 to 25 persons in a room.

The industrial element is believed to be very useful in the care of these persons and a great effort is made to provide suitable occupation and to induce generally indolent epileptics to take part in this. The care of the cows and other stock, general farm work, laundry and kitchen work, grading, gardening, and landscape work form the chief elements in this general plan.

A convenient infirmary has been built in which 20 men and 20 women are provided for in four distinct wards. There is also a convenient medical center comprising a dispensary, laboratory,

and operating room in the same building. A diet kitchen and accommodations for photography and electrical treatment are also furnished. Two large rooms in the basement are given up to hydrotherapeutic treatment. The administration of medicine is, from principle, the least consideration and an effort is made to encourage the patients to exercise self-control, to keep regularly industrious and to avoid dosing as much as possible.

The question of physiologic chemistry is considered of great consequence and experimental work is being carried along in this line.

A good mixed diet has been adopted as on the whole the most advantageous, while every effort is made to teach the patient to give ample time and mastication to the taking of his food.

The difficulties of dealing with this class of persons with dangers of injury, or even of homicide, are well appreciated ; but so far no great discouragement has been met beyond the usual ones.

In general the statement is well warranted that all cases coming to this institution who have stayed long enough to become wonted to the routine have been benefited in a very marked degree. Some few patients appreciate this fact so much that they settle down to a daily routine with thankfulness.

The fact that no recoveries are recorded sometimes has a discouraging influence upon certain patients who are intelligent enough to study the reports ; but as a rule the advice of discreet friends together with the teachings of the hospital keep a fairly steadying influence.

A school is provided for the younger patients and a training school for nurses.

## INSTITUTIONALISM: WHAT IS IT?

BY ELMER LEE, M.D., New York.

The preservation of the life of the human being is the first consideration of the individual, the social organization, and the state. Men differ in natural vigor and in acquired strength. Old age ripens the intellect and weakens the muscles. Infirmary and consequent loss of self-sustaining energy of the old entail responsibility upon the younger and stronger social units of society. Ambition to excel in the competition of human doing often stimulates men to unreasonable risks. Since their resources fail to meet the strain, the spirit and courage break, the health fails, and the final result may be dependence upon charity for existence. The very fact that man is a free-will being explains both success and failure. Man in his haste is frequently heedless. Competition spurs him to rashness. He overworks and underfeeds or he overfeeds and underworks, in either case his intemperate use of the forces with which he is endowed are abused. The occasions are numerous in every man's life for harm and misfortune. It is a gauntlet of risk from beginning to finish. The commercialism of the world does everything possible and thinkable to encourage men to waste strength and health. The art of man is employed to devise drinks that are injurious, foods or eatables that are unnatural and unfitted for human use, drugs are permitted to be sold that are destructive to health and intellect, sports are encouraged that maim and destroy, and a vast number of dangerous mistakes and abuses go on to rob man of his birthright. The saloon never closes. The asylums for the unfortunates who drink the liquors are seldom large enough to afford room for the applicants. Society privately and publicly supports the saloon and the asylum: the diametric opposites, yet complements. Little children are sent to school for education and knowledge. But with all their getting, few if any learn how to rightly and safely care for life itself. The care of the human machine cannot be safely left to instinct. Life is maimed and but half what it might be since its

<sup>1</sup> Read by title before the American Academy of Medicine, St. Paul, June 3, 1901.

care is principally regulated by chance rather than by knowledge gained from experience. Man as a race is surely improvident and wastes his strength ; and knowing his own nature he thinks to provide some shelter for mistakes and misfortunes by founding private, corporate and state institutions that will shelter the indigent.

Moses was among the early founders of institutional rules and refuges for the weak. His hygienic and sanitary plans were learned from the Egyptians who, as early as 1550 B. C., taught and practised institutionalism. The priest and the church paternally felt the responsibility of the sick. It appears that civilization has always been encumbered with such responsibilities. Civilization has not always been a saving, indeed the institutions of the world stand for vast sickness and suffering, apparently incident upon civilization. While there are more ways of relieving pain and suffering in this day, there are likewise proportionately greater liabilities to accident, sickness and misfortune. But to whomever or whatever source we look for responsibility for the bitter state of human woe in this world, the private wealth, the corporate organization and the resources of the state are filling the land with institutions to house and do for the unfortunates. The activities of the times in which we live demand recourse to every opportunity to satisfy human ambition and give employment. The race of man is impatient and looks in this inventive age for the smallest to the largest opportunity to afford the mind and the hands satisfying employment. As one resource after another for profitable activity is tested, new methods and ways are invented to satisfy either the rich man in his desire to use his wealth or to give position to the ambitious for private, corporate, or state preferment. Institutions are as much a necessity of the office holder as they are needed to supply roof and shelter for the houseless, the incompetent, and the unfortunates of every description. Every eleemosynary institution is crowded and every new one is no sooner opened than its capacity is required to satisfy the applicants for charity. It seems that the more we help the unfortunates the greater the number grows. Is there any remedy that will lessen institutionalism ? No one of the many thinkers and workers in the field of charity has lessened

the pressure or stopped the growth of the dependent classes or the expansion of the charities. Right living based on right knowledge would save the loss of useful lives and diminish the institutions. Yet right living has not yet been standardized and approved by the medical profession. Physicians are themselves frequently found in the institutions as beneficiaries. It is too much to ask that every man, woman, and child shall rightly use his natural forces and conserve his strength and prepare wisely for old age. Society simply cannot resist the alluring and seeming opportunities for pleasure and gratification of self-indulgence. A little habit let into the daily life insidiously grows into an exacting desire. It takes but a few years to demoralize the self-control and lay a foundation for institutionalism. The child that is carried in the arms of the mother to the dispensary or clinic is given its first lesson in thinking to get something from some one for nothing. Doctors now find it extremely difficult to prosper without attachment to one or more of the charity organizations. It is fast working a change in the profession, so that many physicians are gaining their practice and income as officers and attendants of the institutions which are everywhere multiplying. There is always this satisfaction in looking at the state of an art, it is this—what is, is of the people, and that which is of the people is the best. There is no other conclusion. The institution is neither to be welcomed or denounced, it is a factor of human progress, whether for better or worse only time can tell us. The world has grown so multitudinous and the conditions for satisfying human cravings and longings are now so involved that there is but one course to pursue, it is to push on and let it lead out to its own conclusion. There can never be revolution, for changes are gradual both for better or worse and gradual movements cannot much disturb or alter conditions to any great degree in the lifetime of a generation or an individual. What we would all wish to see is a condition of society wherein each member of adult age would be sufficient unto his own needs, with a knowledge and a saving force within, which would lead to full development and usefulness without pain, suffering, and premature death. The habit begun in early life of receiving aid from institutions is a powerful factor in the necessity for growth



and expansion of institutionalism. I for one am not rash enough to propose a curative treatment for this state of social misfortune. But I feel sure that more assistance is offered and asked for than is wise or good for the applicant. Public opinion favors institutionalism and it is likely to go on, ever increasing. Self maintenance after all is the most satisfactory existence, so that the beneficiaries are the most unfortunate members of society. Some great human lesson is being taught by institutionalism, but just what it is is not clear. Time will interpret the meaning of this movement.

## TENDENCIES IN HOSPITALS FOR THE INSANE WITH SOME SUGGESTIONS.<sup>1</sup>

By J. E. ROBBINS, M.D., State Hospital for the Insane, Danville, Pa.

There are two fundamental facts about these institutions that may have unfavorable tendencies unless these tendencies are carefully guarded against. These are isolation from the rest of the world and lack of competition.

These communities exist apart by themselves. Scarcely any one except the officers and employees gets behind their doors long enough to understand what is going on. From the nature of the case this must be so. It would not be right to expose the insane to the inquiring eyes of the curious or sentimental. Outside physicians do not acquaint themselves with these institutions either; and the medical staffs do not associate much professionally with their outside professional brethren. A more intimate relation might be mutually beneficial. This isolation has tendencies good and bad. One of these tendencies is toward conservatism. This has its good and bad side; changes heralded as progress, but really inspired by vanity or greed, are most dangerous; but changes inspired by earnestness and guided by sound reason and good common sense are beneficial.

There is not much liability to dangerous radicalism. Popular fads are not apt to receive much consideration. It is pretty clearly understood in these institutions that in all cases of insanity, there is a lesion of the brain; that nature must heal this lesion before recovery can occur. Rest, good food, proper hygiene, and time are necessary for this. After this lesion is healed, amusements and recreations may aid in reestablishing impaired or lost functions. The same therapeutic principles apply to the treatment of insanity as are applicable to the treatment of a broken femur—rest, good food, hygiene, and time,—and after the lesion is healed, exercise to restore impaired functions. Just in proportion as these sound fundamental therapeutic principles are appreciated, will treatment be appropriate and helpful.

<sup>1</sup> Read by title before the American Academy of Medicine, St. Paul, June 3, 1901.

Like the famous shield of old, this matter has two sides. The useful tendency to conservatism is apt to pass over to ultraconservatism. Many substantial advances in the treatment of disease have been made within the last two decades, and these advances make their way rather slowly in these institutions. It is probably best not to be in too great haste in making changes. New things should be carefully considered and adjusted to the actual circumstances, otherwise they become mere shams. The trained nurse, who has become so indispensable in general hospitals, makes her way slowly here. In some of them she has not yet arrived, and in all, her usefulness could probably be extended. If treatment is to be intelligent and skilful, an intelligent and skilful nurse is a necessity.

A nurse in these institutions, should be, to start with, an intelligent, thoughtful, sensible, kind, tactful, and firm person. Character is most important, for her influence over her patients will depend more upon her spirit and conduct, than on anything she may say. She must add to the acquisitions of a general nurse, the ability to wisely control insane and, therefore, unreasonable people.

Granted proper persons, they ought to be thoroughly trained in their duties. They ought to be able to care for a case of typhoid fever, or other case of acute or chronic disease; to prepare, care for, apply or help to apply, aseptic or antiseptic dressings; to prepare the patient and make other arrangements for a major operation and give intelligent assistance at the operation; to give douches, hot packs, cold baths, medicines hypodermatically; prepare and apply counterirritants, fomentations, poultices, etc.; to take the pulse, respiration, temperature, measure urine and make other simple observations and record them accurately; to feed a patient with a nasal tube; to give massage and electricity; to disinfect a room and clothing; to care for an epileptic during a convulsion; to manage their ward work and control their patients smoothly; to meet emergencies that may arise and such like. And these things they ought to be able to do well. It is to be feared that not all of the nursing forces in these institutions are equal to all these things.

Besides they ought to have the professional spirit as opposed

to the commercial or selfish spirit. They ought to be sufficiently devoted to their work to be willing to make personal sacrifices for the good of their patients, although they do not see that they are going to be paid for that particular service. First-class nursing cannot be done where the spirit of so many hours' work for so much money prevails. The spirit of getting all you can for as little service as possible is not apt to give satisfactory results. There is room for improvement in this respect.

The spirit of commercialism is a relic of the old system of caring for the insane. Not very intelligent persons, whose highest aim often was simply to get the wages paid for the service, were frequently employed. Another fact also rather discourages the professional spirit—a nurse's services are usually not fully appreciated, either by her patients or the community. It takes a hero of a high order to perform faithful self-sacrificing service that is not appreciated. There is one quality that the trained nurse sometimes acquires that is very undesirable—that is conceit. A conceited nurse is a dangerous and unmanageable instrument.

A pathologic laboratory with appliances for clinical research would seem to be almost indispensable to good work in these days. It is a question, however, whether it would be advisable to devote much time to original investigation in these institutions, much as these investigations are needed for the good of the science of insanity. These investigations require men thoroughly trained in pathologic work, and much time. The ordinary hospital physician has neither the training nor time for it. It is said that most attempts in this direction have not led to any reliable results. A central laboratory, as New York state has, would seem to promise better results in original work. But regular and systematic examination of urine, sputum, blood, etc., and pathologic diagnosis of tumors is practicable.

Cases admitted to these hospitals, ought to be systematically and thoroughly examined, much as they are studies in our best general hospitals. It is only after such a thorough knowledge of the case is had, that it is possible to devise the wisest line of treatment. To accomplish this, all the resources of diagnosis, including pathology, must be laid under contribution.

Another matter that is slow in coming, is a properly equipped operating room with modern instruments and appliances. Thorough asepsis and antisepsis are well nigh impossible without these. To keep these institutions abreast of the times, their physicians must keep well in the current of medical progress. They must put aside pride and conceit and be willing to learn. Reading and study, together with frequent practical courses at post-graduate schools, and courses in psychology and psychiatry are the means at their disposal.

The medical staff is usually recruited from young physicians who have just served a term in a general hospital. They are required to be on duty day and night, Sunday and week days, from one year's end to the other. Their work is usually not too hard and exacting, but is, in large part, a rather monotonous repetition of the same duties. And from these duties they cannot get away. They are, as a rule, not allowed to marry and establish homes of their own, but have to live alone in a single room or two. They are thus deprived of all the comforts, encouragements, and inspiration that comes from a home life. A home is usually believed to be both an inspiration to faithful endeavor and a defense against sin and evil. It is a place to which a person, when tired of work and the annoyances of the outside world, can retire for rest, new strength, and new determination. To deprive a body of men of such a factor is to cripple them in their work and stunt them in their development. Such a policy does not take into consideration either man's nature or his best interests, and must end in deterioration first of the men and then of their work.

Two consequences result from this policy. First, the best class of men is apt to avoid these institutions. Many of those that do come soon see that their stay can only be temporary and fall into indifference, or become restless and discontented and leave. If a reasonable number of hours' service a day were required of these men, and if they were allowed to marry and establish homes of their own, and live in them as other men do, they would be more substantial, stronger and more efficient men.

Mechanical promotions according to seniority of service with fixed salaries (in so far as they exist) tend to discourage vigorous

effort. Under this system, no recognition can be given to self-improvement or faithful service. A man's pay is largely a matter of accident; merit does not especially enter into it. The tendency of such a system is to encourage the physician to relax his efforts and fall into routine.

Isolation and lack of necessity for improvement tend toward deterioration in all grades of employees.

The statement that association with the insane directly, in some mysterious way, necessarily produces intellectual and moral deterioration is not true; but this association in asylums may indirectly have such results by cutting off outside stimulating and elevating influence.

Man is always controlled and molded by his ideas and convictions. If these are right, elevating and stimulating, he develops; if they are wrong, debasing or depressing, he deteriorates. The elevation of the debased, either in heathen or Christian lands, is largely a matter of new and better ideas and convictions. These work themselves out in better conduct and living. Similarly, deterioration results from debasing ideas and convictions. Development or deterioration is either of them largely a matter of ideas and convictions. Now, wrong or debasing ideas come either from without from our associates, or from within from inherent depravity.

In associating with the insane, no one will be very apt to accept either their perverted ideas or morals. Error and evil in them is too gross and repelling. Evil concealed, gilded, respectable or fashionable, is much more dangerous. On the other hand, little or no intellectual or moral stimulus can be had from them; and if the employee cuts himself off, as he is apt to do, from the influence that comes from healthy and stimulating outside association and inspiring reading and study, he will naturally deteriorate.

It is not the direct influence of associating with the insane that does the mischief but being cut off from elevating and stimulating influence. The degeneration is natural and spontaneous, when the opposing influence is removed. Moreover, isolation in these institutions, is apt to give a person inflated notions of himself and a mean opinion of those that are unknown to him.

Such delusions lead to irrational conduct just as surely as do the delusions of our patients. The remedy for this tendency is to touch the outside world at as many vital points as possible, and to keep up a continual line of inspiring and invigorating study. The moral, religious, educational, intellectual and social affairs of the community near which we live, are all avenues through which we can keep up a healthful association and acquaintance with the outside world.

The commercial value—that is the tendency to efficiency—of strict and sound moral and religious influence is not always fully appreciated or acted upon.

Two opposite views are held as to how to get employees to render the most efficient service :

One class of men seem to hold that by pandering to the appetites and selfishness of people their good will can be won, and then, as a consequence, they will render faithful service. These men would introduce frivolous amusements for their employees, such as balls, progressive euchres, and popular or fashionable fads. These appeal to vanity, selfishness and appetite, and make little or no demands upon either the intellectual or moral nature. Just how these appeals to the lower and grosser part of a man's nature are to especially qualify him for faithful and conscientious service is not explained.

Another class of men hold that efficient service can be expected only from the sincere, thoughtful, conscientious and earnest person, and they would direct their efforts to foster these qualities. They believe that observation and experience teach that many popular amusements tend to develop selfishness, self-indulgence, thoughtlessness, and indifference, and to create a restless frivolous spirit that is more interested in gossip or the latest society event or scandal, than in the serious matters of every-day life and duty. These men would throw around the employee moral and religious influence and encourage rational and elevation recreations and keep out mere frivolous amusements.

The latter view seems to correspond more nearly with the facts of experience. Railroad companies and other business establishments, find that they are repaid for establishing reading rooms and Young Men's Christian Associations in the more efficient

service of their employees. The Spanish soldier found himself inferior to the American largely because he had been devoting himself to a frivolous rather than a serious mode of life. Sincere Christian morality tends to conservation of physical and mental energy; increased efficiency must be the consequence. Self-indulgence and irresponsible living bring dissipation and inefficiency. Measures that promote sound morality must at the same time increase efficiency. This matter receives too little attention. Opportunity and encouragement to attend religious services; access to inspiring and elevating reading; encouragement to take part in rational recreations rather than in mere useless and often demoralizing amusements, inspiring them with the idea of laying hold of all opportunities for self-improvement; these and such like that appeal to the better nature must result first in the improvement of the employee and then in the improvement of his service.

The aristocratic and caste spirit is quite liable to obtain. There are grades of employment to divide employees into classes. No great crises are apt to arise to develop appreciation for the capable and thus break up the artificial distinctions that deposit themselves when extraordinary efficiency is not demanded. There is a tendency, as in officialdom generally, to estimate men and women not in terms of manhood and womanhood, but by the accident of position. This tendency leads to a lack of sympathy and consideration to unkindness and injustice on one hand, and to hatred and indifference to duty on the other. Difficulties in these institutions may have their real source in this spirit oftener than is commonly supposed. Consideration and honor should be given to character and efficiency rather than simply for the grade of work done. Doing the common duty uncommonly well should be the standard of honor. Honor for faithfulness, efficiency and fine character with promotions strictly according to merit promises the best results. Self-respecting people will avoid any place where the spirit of caste prevails.



# THE NEED OF NATIONAL COOPERATION IN THE ESTABLISHMENT OF SANATORIA FOR TUBERCULOSIS.<sup>1</sup>

By A. MANSFIELD HOLMES, A.M., M.D., Denver, Colorado.

A historical sketch of the evolution of the hospital is full of interest. The origin of the hospital can be traced to crude and primitive types instituted by monasteries. These establishments for the sick remained in the hands of the clergy until after the Reformation.

In the course of time separate buildings were erected for the sick. The earliest record of such institutions dates about 370 A.D. The earliest distinct record of the building of a hospital in England was in 1080 A.D. There was, however, little advance made until the 18th century.

As the hospital plan developed there was a strong tendency to the aggregation of a large number of patients in a small area. The crowding of patients, deficient ventilation, imperfect sewage, and the want of attention to details of cleanliness were factors which brought about failures in results. Radical changes were slowly introduced. Increased knowledge of sanitation led to larger area for patients, improved ventilation and a greater attention to hospital architecture. The necessity of obtaining not only better ventilation but better air, led to improvement in location and a return to smaller buildings. This plan developed into the establishment of sanatoria in rural or mountain districts.

The cottage sanatorium marks a new era in the development of the hospital plan.

## SPECIAL INSTITUTIONS.

The danger of infection made it necessary to establish hospitals for contagious diseases. Experience demonstrated that such institutions reduced the danger to the public, and at the same time decreased the mortality.

<sup>1</sup> Read before the American Academy of Medicine at St. Paul, June 3, 1901.

Until comparatively recent date special hospitals were limited to a few of the most contagious diseases such as smallpox, scarlet-fever and diphtheria. These institutions were, and continue to be, established and supported by the public.

The advantages of institutions for special diseases being well demonstrated, we find the establishment of special hospitals for diseases of children, maternities, institutions for the feeble-minded and insane, and for the deaf-mute and blind. Many of these institutions are also established and supported by the state.

#### SPECIAL INSTITUTIONS FOR TUBERCULOSIS.

As the contagious nature of tuberculosis became more generally known, the necessity for institutions intended especially for those affected with this disease became more and more imperative. Increased knowledge of the nature of tuberculosis has made the establishment of institutions for the care and treatment of those afflicted with it one of the most important questions before our people.

Tuberculosis is destroying one-seventh of our population. Hence, all humanity is interested and the public should be ready to cooperate in constructing every possible safeguard for its own protection. The signs of the times point to much progress in this direction. Societies for the prevention of tuberculosis are being established in many sections of our country. The beneficial influence of these societies is far-reaching. They serve as public educators and stimulate the organization of similar societies. The press of our country has done much toward sending broadcast the well established facts pertaining to infection and the means of preventing the spread of the disease.

Some one has said : "The highest function of government is to protect its citizens." It has been demonstrated that sanatoria protect the community against the dangers of infection and also increase the chances of recovery for the patient. Furthermore, the statistics of European and American sanatoria show a large percentage of cures, and these persons are able to return to their families and once more become wage-earners. It is evident, therefore, that it is not entirely a charitable act for the state or municipal government to establish and maintain these institutions.

One who has given the subject much thought says that "On the ground of economy, independent of a humanitarian feeling, the money spent through state appropriations is wisely spent and many times returned through the productive efforts of those whose lives are saved." Acting upon these facts the state insurance societies of Germany have established private sanatoria for their own policy holders, and find it not only a humanitarian but a profitable investment.

The advantages of sanatoria for the treatment of tuberculosis are too well established to need further proof. The problem which now confronts us is the method of establishing and supporting such institutions for the greatest good of the public. Many individuals have given generously to the few institutions now in existence; but individual contributions furnish only a nucleus for such a mammoth undertaking. Individual philanthropy can do little more than establish the necessity of a wider cooperation on the part of the public. Every general cooperative movement is preceded by a period of agitation. During the preliminary stage the needs of cooperation are made plain, a plan formulated, the sympathy of the masses aroused and the complex problems of politics carefully considered.

How can such cooperation be best secured? Since tuberculosis knows no creed, party or locality, but enters every station of life, we must consider the establishment of sanatoria from three distinct view points. The financial question divides humanity into three groups: First, the very poor, or dependent class. Second, the class of wealth. Third, the great middle class, or wage-earners.

The contagious nature of tuberculosis makes it imperative that each of these classes be considered, for the general welfare of all.

*First.*—The first class belongs to pure charity. To be poor and also afflicted with tuberculosis is a double misfortune. This class should receive support from the community to which it belongs. It has been conceded that sanatoria give best results when established in localities blessed with favorable climatic conditions. Notwithstanding this fact the tendency is rapidly increasing for each state or city to establish sanatoria for the care of

the consumptive poor, and for advanced and hopeless cases. Necessity requires that these institutions be located in rural or timbered regions near the large centers of population, regardless of the climatic conditions.

*Second.*—Sanatoria conducted for profit can be found in every land. In such institutions every luxury can be found that money can procure. Those blessed with wealth are willing to exchange it for health. They can demand the best the world can produce and it is awaiting them.

*Third.*—On the other hand we have a class too self-respecting to beg, and too sick to work. A large percentage of those afflicted with tuberculosis belong to this class, and come from the great middle class of humanity. Unfortunately, however, when tuberculosis affects a household it generally takes a wage-earner. Earnings are thereby diminished and expenses increased. Under existing conditions such patients find it impossible to avail themselves of sanatoria located in distant health resorts. When members of this highly respectable and industrious class avail themselves of sanatoria or seek a change of climate, they are compelled to leave comfortable homes and remunerative positions. Many of these patients, and especially those who have had a prolonged illness, are short of funds and sooner or later find it necessary to seek remunerative employment.

This brings us to the discussion of another phase of the tuberculosis problem—the phase which it is the chief object of this paper to discuss. It is well known that many of those who acquire tuberculosis have been overworked and underfed; have lived indoors and breathed a contaminated atmosphere. If one acquire tuberculosis surrounded by such conditions, he must seek a change of environment or recovery is hopeless. To these a change of climate becomes a serious problem. Many such patients are from necessity compelled to be self-supporting or become a public charity. They are willing to work, and in the early stages and when well advanced in convalescence, are able to perform light labor and could become partly self-supporting if the conditions were made favorable for them.

In health resorts the trades and professions are always overcrowded; few patients are successful in securing employment.

Owing to lack of means and inability to secure remunerative employment, they are forced to secure cheap apartments, invariably with insanitary surroundings, impure air, and poorly ventilated sleeping rooms. Many are compelled to economize further by living on insufficient or a poor quality of food. Under such conditions, improvement is rare and recovery impossible.

#### COOPERATIVE SANATORIA.

It is to the development of the cooperative idea that we must look for a method to improve existing conditions and make the lot of the unfortunate consumptive less difficult. What has been done in other cooperative movements can be carried out with equal success in the establishment of sanatoria for the care of the consumptive.

#### *Benefits of Cooperation.*

Cooperation has been the means of bringing many blessings which humanity now enjoys. Examples are without number. The annual payment of small dues keeps hunger and suffering from thousands of fatherless homes; provides against sickness or accident, and loss by fire of home and property. Building and loan associations have made it possible for thousands to secure comfortable homes by the monthly payment of small sums. Cooperation enables the masses to receive at a small expense what would cost a fortune if a few should undertake to accomplish the same results. The growth of insurance companies and other cooperative institutions rests upon the fact that the fundamental principles underlying these organizations are noble ones.

Examples are numerous among the lower animals where the strong protect the weak, where the well care for the sick and injured. The huntsman tells us that the stronger animals often expose themselves to view and attempt to entice the enemy from the weaker prey. We have often seen examples of strategy among the feathery tribe, when the older birds feign a broken wing to entice the sportsman from the young.

Cooperation in its most laudable sense is found within the shrine of fraternal organizations. The fabric of these organizations is bound together by the delicate cords of friendship and

sympathy. A misfortune, a pain, a loss to any member sends a thrill of sorrow throughout the entire organization, and the reaction brings sympathy and aid in the dark hour.

If it is the first duty of a state to protect its citizens, it certainly becomes an important duty to protect the consumptive poor and to overcome the sources of infection which now endanger the masses.

Sanatoria established upon the cooperative plan, in which the public can become shareholders and virtually partners, are destined in the near future to play an important part in advancing the prosperity and relieving the hardships of those threatened or afflicted with tuberculosis. When a practical plan is proposed for the relief of this unfortunate class and for the protection of the public, national, state and municipal legislation should be readily secured. But we have learned from experience that legislative bodies act slowly. In the meantime, private cooperation must take the initiative. With existing conditions, cooperative sanatoria become a necessity. The establishment of such institutions can be made to overcome many of the difficulties which are now encountered.

To accomplish these results I wish to submit the following plan :

#### A PLAN FOR COOPERATIVE SANATORIA.

The institution should be a cottage or pavilion sanatorium ; it should be located with a view to securing the most favorable climatic conditions—with the advantage of pure air, sunshine, and pleasing surroundings. The institution should be educational, industrial, and cooperative in nature, but should not be conducted for profit. The actual comforts should be furnished patients at cost. It should produce its necessary supplies, and when patients are able to take part in any of the remunerative industries carried on by the institution, opportunities should be given them to reduce expenses by their own labor.

Patients needing such an institution come from every walk in life. Such a cooperative effort will offer not only an opportunity for an unlimited amount and variety of labor, but will open a field for the diversified talents of the various classes of

patients who may be admitted to the institution. It should furnish patients who are financially able to pay for the privileges of the institution, with an opportunity to take up light, open-air employment suited to their tastes and ability, and thus unite the entire institution upon the broad plane of usefulness. With such a policy, patients can avail themselves of a change of climate while the disease is yet in its incipency and before they become incapacitated for light, open-air employment. By this method patients will not become objects of charity and will not be deprived of their self-respect.

It is believed that the foregoing objects can be most successfully attained by means of a thoroughly equipped sanatorium, situated in a congenial climate and conducted on the cooperative and industrial plan.

An institution has recently been founded in Colorado upon these lines and has been incorporated under the name of

#### THE ROCKY MOUNTAIN INDUSTRIAL SANATORIUM.

Prof. Walter A. Wyckoff, an authority on sociologic questions and also familiar with the need of cooperative work, in passing judgment on the practicability of the plan which I now propose, says:

"Granting efficient and thorough business-like control and administration, I see no reason why the plan should not succeed. The success of all cooperative enterprises depends, it seems to me, upon the securing of the best administrative and executive ability, and giving it the greatest possible authority and freedom."

A general effort to establish cooperative sanatoria by those who know the need of such institutions will do much toward bringing about state and municipal legislation.

The State Board of Charities of New York recommends that state hospitals for consumptives be established, and that they be maintained by a *per capita* tax on the locality from which each patient comes. This tax may be voluntary contributions made annually.

The "Cottage Endowment Plan" makes it possible for individuals or organizations in distant states to endow cottages to be named in honor of those endowing same, and to be used by

their friends who may be threatened or afflicted with tuberculosis.

" That man may last but never lives,  
Who much receives, but nothing gives;  
Whom none can love, whom none can thank,  
Creation's blot, creation's blank."

The many examples of useful lives which have been prolonged are sufficient to quicken our efforts to save those who are now threatened.

Unless the public unites in an effort to cooperate in establishing sanatoria for tuberculosis, hardships and disappointments will await those who seek health in strange lands.

105 JACKSON BLOCK.

#### GENERAL DISCUSSION.

Dr. Leartus Connor, of Detroit :

The papers read by Drs. Hill, Goldspohn, and Holmes are of one type and they make to us the suggestive reflection that they are an aggregation of trusts,—medical trusts, most of them. Dr. Hill lives in a state with no large city with its breeding place of bad thinkers and worse actors. He lives in a state that breeds not only cows, but men, and hence he is able to secure results thus far secured nowhere else. In a state like Iowa the children are grown with a chance to make bones, muscles, and nerves with healthy environment.

Then we have the suggestion from Dr. Holmes' paper that for those afflicted with a certain disease a series of sanatoria be organized the country over for meeting the different needs of different classes, varying them as required.

Lastly, we have the suggestion by Dr. Ellis that the doctors cease being tools to those who know nothing about organizing or conducting institutions and care still less for them, who make the doctor the servant to do their work and they get the honor and emoluments. This is a condition of things which, so far as I know, prevails from the Atlantic to the Pacific. I have no faith in law to control that sort of people: the thing to do is to get the rightful boss on top, as suggested by Dr. Ellis in his paper.

There is in Michigan, at Battle Creek, an institution that is the author and support of 27 different institutions, sanitary or medical in their character, covering the entire world. It was primarily started by a semireligious body called Seventh Day Adventists, but fell under the control of a doctor known to many of you, long prominent in temperance, in health food, and sanitary matters, Dr. Kellogg. He says he gets nothing out of the organization, but I notice that he has the financial backing and has the control stock, and the thing is practically his. Our socialistic friends chuckle over this arrangement and think the day is approaching when their own principles will ob-



tain. I have always myself held very strongly to individualism. I do not believe the best sort of man or institution can be had unless an opportunity is given for freedom of exercise in the way that the individual thinks is proper and wise. The suggestion of Dr. Ellis advising that sort of individualism by the profession appeals to me very strongly. In a lifetime of study of this question I have deprecated the fact that the doctor is under the foot of the layman in these institutions. A doctor may for a reason keep on top of politics and social matters, but the time comes when he is crushed. There is no reason why he should not be on top in medical things all the time. He should let politics and the legislatures alone. He should depend on himself and show to the world that he has executive power and knows how to take care of funds. Then there will be an advancement of medical science, an increase of his bank account, better care of his family, and greater respect among the community.

Dr. Edward Jackson, of Denver :

The papers of this morning have well brought out the reasons for, and the dangers of, institutionalism. Institutionalism is a movement in organization and accomplishes certain very great economies. The account of the change made in the Iowa State Hospitals illustrates what some of these economies are. In the main they are almost wholly financial. They are so real and so great that they give an enormous impetus to the movement, to the organization of institutions, and the perfecting of institutions. At the same time, they represent improvement on only one side of our medical institutions and on the lower side, the side that should always serve and not control ; and yet if that side gains prominence through this movement for organization it will control.

I noted with much interest two things in Dr. Hill's paper : (1) The effort to secure independence of superintendence. I think the complete independence as to medical matters and treatment is a very important thing to watch for in the working of any law. We must have institutions ; we cannot live together in dense communities without them, but they must be institutions that allow of the greatest possible freedom in certain directions, and this is very often lost sight of.

In the discussion on Saturday with reference to the gain which had been made in medical education, and especially in a discussion after the meeting, the point was very strongly made that although we had gained in the length of the curriculum, and increased the number of hours, we had lost the quiz system and the freedom and independence which it allowed in competent teachers being able to build up large classes so that large masses of students were taught by the ablest men. While the present college system compels all to follow the teaching of the instructors placed over them, these are often not the most competent men. I mention this merely as an instance in which the freedom of selection, which is important for promoting efficiency, has been lost, and perhaps unnecessarily lost, and to fix attention upon those points mentioned by Dr. Hill.

The other point was the publishing of a Bulletin. It seems to me that in order to bring these Iowa institutions under what must be an essential influence for their future proper scientific conduct and advance there must be some channel through which the influence of the general profession can be felt ; some way in which the medical management shall remain in touch not only with the board appointed by the state, but with the medical profession throughout the state and world.

There is another point which ought to be watched closely and a form of the institution that ought to be developed. A realization of the absolutely essential character of the growth of institutions, of the fact that institutions of some kind we are bound to have, ought to put us in an attitude favorable to the reception of the ideas of Dr. Ellis' paper. We must have hospitals ; they must be organized ; there must be training schools for nurses. The fact that this has been done practically and with profit, that such an institution has been organized and controlled by the profession and with such great profit and efficiency as the growth of this institution shows, is one of very great value to the profession at large. It seems to me there can be no great city, to which patients come, in which such a hospital might not be established. Even in any city large enough to support a hospital this is true, for it is becoming more and more the rule for persons living in a city to enter the hospital for operations or special treatment. The hospital is a method of giving the best modern treatment to a certain large class of patients, and the question of keeping it in the control of the medical profession is one certainly of the very greatest importance. I want to thank Dr. Ellis for bringing his account of the Los Angeles experiment before us.

Dr. L. B. Tuckerman, of Cleveland :

I have learned to look upon the "working man," *i. e.*, the man who earns his living by manual labor, as a dead man, in case he became infected with tuberculosis, and of those cases that come under my own observation I venture to say that 99 per cent. go on to a fatal issue for the reason that the community does not make a proper provision for them. We are now endeavoring to establish a hospital for tuberculosis in Cleveland.

I cannot agree with my friend, Dr. Connor, that we should let legislatures and city councils alone. The trouble is that we let them too much alone. We had once in Cleveland a city hospital, where all the poor were sent and in that hospital the medical staff changed with every administration. The question of a man's medical qualifications was not so much considered as his political affiliations. At one time one of these men, appointed for his politics rather than his medical knowledge, amputated a leg with the flaps on the stump. We took the matter before the city councils and got the hospital placed in the hands of a staff appointed by the two medical schools, and now that hospital is creditably administered. This came as the result of taking a hand in politics.

Dr. H. A. Tomlinson, of St. Peter, Minn :

There are two dangers of institutionalism I have not heard mentioned in

this discussion ; the pauperization of the patient and his family, and the overcrowding of the institution. The one is the natural sequence of the other. Pauperization is imminent on account of the increasing tendency toward complete state provision. That is, the state is gradually assuming all financial and other responsibility for the care and treatment of the diseased and defective members of the community. The natural result has been a growing indifference to the welfare of these individuals on the part of the family and community. Then there follows the natural sequence,—overcrowding, which is the bane of all public institutions of a charitable kind, and more than anything else interferes with their usefulness and success ; particularly because it lowers the standard of the work done and tends to reduce the character and surroundings of the inmates of the institution to the level of the lowest individual. Just so long as the community and family are free from financial responsibility for the care of their diseased and defective members, they will be indifferent to their welfare and the overcrowding of our public institutions will increase. The public does not appreciate indirect taxation and therefore will resent appropriations for public institutions, because they will relatively increase direct taxes without any apparent benefit. Then too, the legislature and boards of managers of these institutions are constantly urged to look after their (so-called) economical administration and to reduce the per capita cost to the smallest possible amount, so that the inmate becomes only a figure of speech upon which to base the per capita calculations, and an excuse for the existence of the institution. The discussion of the welfare of the inmate is from the purely mercantile standpoint, and his needs and welfare are discussed and considered as would be the care and transportation of merchandise and cattle, except that the cattle are more considered, because their sickness or death would entail financial loss. If there are so many cubic feet of space in a public institution, so far as the general public is concerned, there is no reason why individuals should not be packed into this space until it is filled, on the same principle as cattle are packed into a car. This indifference is so general that in many public charitable institutions beds are built in tiers and rooms meant to hold one or two persons, have from two to five in them. If you speak of this overcrowding to people interested in general charitable work, they look shocked and incredulous ; express their sympathy and interest, but that is as far as it goes. These conditions do not affect them personally, nor their families ; besides, the insane and defective are not interesting nor agreeable to be with. Even if the individual to whom you are speaking has a personal interest in some one in the institution, he never goes any farther than to complain because the things are not done that ought to be done. Instead of blaming himself and the community he criticizes the authorities of the institution who are helpless. Unfortunately, if you urge the legislature or a charitable body further they will say : "Why do not the members of your own profession take the matter up, if it is so important ?" It is to be regretted that we have to answer that the members of the medical profession are too busy and interested elsewhere. I do not believe that there will be any real ad-

vance towards the correction of the evils of institutionalism, nor any progress in the direction referred to by Dr. Jackson, the development of the medical aspect of institution work, until the medical profession takes an active interest in them, visits them frequently, and informs itself as to their needs and limitations.

Dr. C. S. Sheldon, Madison, Wis. :

The picture which Dr. Hill has drawn of civil service rules, meets the approval of us all. I have noticed that every change of administration has brought a change in the officers of the institutions of some states without any reasons for the changes ; indeed when there were very good reasons why there should be no change. If such a state of affairs exists in our own states we ought to call the attention of the state executive to the Iowa plan.

The matter suggested by Dr. Tomlinson is certainly important. Our state societies, by a proper effort, ought to be able to induce and maintain a proper and intimate relation between the profession and the institutions. If we had committees interested, who would visit the institutions at the expense of the societies, report annually to their societies, we would be kept in closer touch and exert an influence upon the charity authorities which we do not exert at present. The fact that we are not exerting this influence indicates something wrong with ourselves. As Dr. Tomlinson said, we have been too busy in attending to our own private interests to attend to the public interest.

Dr. G. Hudson-Makuen, of Philadelphia :

The subject of this symposium is institutionalism : I presume a better subject would have been, the evils of institutionalism. It is not a question as to whether we shall have institutionalism, but, how we may make institutionalism as good as possible. I think we should have a clear conception of what the term institutionalism means. The definition given in the first paper is misleading. An institution is a good thing and therefore the term institutionalism ought to suggest something that is good. We are in an institution now. The church is an institution. The school is an institution. The church may not be a perfect institution, nor may the school ; nor, of course, is the hospital, a perfect institution, but we should try to make all these institutions as good as possible. Now if an institution is a good thing, then the term institutionalism ought not to suggest to our minds anything that is evil. If we want to discuss the evils of institutionalism, we ought to call it the evils of institutionalism. I know how difficult it is to give a good definition of anything. You all have read Herbert Spencer's definition of evolution : " Evolution," he says, "is the integration of matter and the concomitant dissipation of motion, during which the matter passes from an indefinite incoherent heterogeneity to a definite and coherent homogeneity, and during which the motion undergoes a parallel transformation."

I am not going to try to give a definition of institutionalism, but it seems to me that it should have been more properly defined. I simply rise to protest against the Academy going upon record as endorsing any definition of the term institutionalism that carries with it a suggestion of reproach.

**Dr. L. Duncan Bulkley, of New York :**

I suppose pretty much the same experience is had in every community. I have been connected with one of the New York institutions where the physicians made suggestions regarding the reception of patients and not one was acted upon. Public opinion should be made strong enough to have the laity accede to the methods which physicians desire to employ in their altruistic labors. In another institution, there are medical men on the board; this is helpful to the proper management of the institution. Sometimes physicians find their efforts to improve the management of public institutions greatly handicapped by the political element.

**Dr. S. D. Risley, of Philadelphia :**

I am gratified that the numerous questions involved in the term "institutionalism" have come before this body for discussion. I appreciate my friend Dr. Makuen's effort to remove from the term any necessary stigma of evil association. The fact that in the papers which have been presented, and in the discussion which has followed, some stigma has been fastened upon it probably grows out of our involuntary association in the mind of institutionalism with such a word as hospitalism which has long been used to vaguely convey the physical evils which are too often inseparable from long residence or confinement under the untoward influences of a hospital. The discussion has certainly tended toward the recognition of certain evils regarded as likely to arise in institutions if not actually inseparable from them as at present conducted. I wish to emphasize the statement made by Dr. Jackson in discussing Dr. Hill's admirable paper, *viz.*, that in time the methods pursued in Iowa are likely to remove the close attachment they should always have to the medical profession. There can be no question but that all institutions for the care and control of the sick, dependent, and criminal classes should be kept in close relationship with the medical profession, since with so many phases of the lives of these wards of the community scientific medicine alone is prepared to cope. Therefore in my judgment these institutions should maintain a very close, constant, and carefully prescribed alliance to professional work and progress. Not only can scientific medicine be of great service in innumerable ways in the proper management and control of the unfortunates placed under the custodial care of these institutions, but, if properly conducted, the institutions may be of signal advantage in furnishing most fruitful fields for the scientific study of the classes represented within their walls. To my mind one of the most signal evils of institutionalism, one at least which your committee had in mind in suggesting this symposium, has grown out of the practical neglect of the medical aspects of institutional work. This phase of the subject has been suggested in Dr. Carpenter's very interesting paper, where he speaks of the tendency toward automatism or perfunctory management. It is, possibly, to be expected, when we consider the frailties of human nature, that those who are kept too long in active management of public institutions should drop by insensible degrees into a perfunctory or automatic performance of their im-

portant functions. By degrees they lose interest in the scientific aspect of their work and are finally absorbed in the comparatively petty detail and daily routine of their life. This to my mind is the baneful seed out of which springs innumerable evils, some of which we have discussed to-day, and which furnish the stigma associated with the term "institutionalism." It leads I am sure in some instances to the custodial care only of those committed rather than to careful medical supervision and scientific analysis of the lives and needs of the inmates. Such active attention to the possibilities for scientific research as I have suggested would not only render the life of the custodian happier and more useful but would at once place our public institutions upon a plane which would command the attention and high regard of the community and infuse a new meaning into the term "institutionalism."

Dr. Carpenter closes :

In answer to Dr. Makuen I would say that the title of my paper was "Abuses of Institutionalism." In it I stated that institutionalism might be a virtue or vice and that I was going to discuss a phase of one of the vices, which grows out of the conduction of institutions. I think no one who has anything to do with institutions will admit that they are perfect. There should be a constant effort to eliminate the evils which creep into them.

Dr. G. H. Hill closes :

I wish to say in explanation concerning the Board of Control methods of conducting institutions in Iowa, that the Governor of the State took the greatest pains possible to select suitable men to become members of the board. He appointed as chairman a wealthy gentleman who had been in the legislature for many years, besides having been governor four years. He was a man who would not allow political influence to affect him in the discharge of his duties. The second one appointed was an ex-judge, just retired from the bench of the Supreme court. He was a Democrat and a broad-minded man. The third was a successful farmer who had accumulated a fortune in farming. He was a superior business man, and to him was assigned the duty of buying supplies. He instituted methods of getting low prices by means of competitive bids.

I think the suggestion made by the chairman and by Dr. Sheldon in regard to the state institutions of Iowa, is good, especially for those which have sick in them, and have physicians connected with them to have the State Medical Society somehow send a committee to visit the hospital for the insane, the institution for the feeble-minded, and the soldiers' home, and make a report to the Board of Control as to whether the patients receive sufficient personal attention and successful medical treatment, whether general hospital methods are being used, and whether the trained nurses are good ones, and generally, whether the best methods are being used in caring for unfortunate persons who need medical treatment. In this way the institutions would be conducted in a manner approved by the general practitioner.

Dr. Goldspohn closes :

I think a medical civil service state board would be of advantage in the State of Iowa in connection with its controlling board.

In regard to cooperative hospitals I can say that the plan suggested by Dr. Ellis is not at all new. Indeed, I am a stockholder in one of the hospitals of that order. The difficulty with the medical stock corporations in providing for the wants of the patients is that they can deal practically only with self-supporting patients. The required minimum amount will be about \$2 a day per capita, for the existence of the hospitals. We know that a large proportion of the people whom we treat cannot pay that. We, as physicians, do not pretend to exclude the poor classes of humanity from our medical care. We are willing to give them that charitably, but we do not propose to buy the ground and put up institutions, equip them, and buy the food also for the destitute sick, and it would be unreasonable for us to be presumed to do so. Further, the business world has gained its wealth and prosperity largely by the sweat of the brow of these poverty stricken people, and many of the well-to-do are willing to contribute their share of the funds for the care of the poor, when sick. But a larger number of the opulent are not willing and they need to be led to contribute their proper share by the processes of law and government. "The poor" we are to have always with us. These medical cooperation hospitals will exist only among and for the better class of people. The large number who are not able to pay about \$2 a day when sick will remain outside of them. For this reason we never can sever our dealings with the political government because it must provide the most material means for the care of the destitute sick. The question is pertinent. How shall we bring our advice to bear? How can the profession make unitedly known its views and demands? If we, as state societies, recognize not simply ourselves, but also the homeopaths and eclectics in their state societies as fraternal organizations and then unitedly say what we want, we will get it. Physicians need not be so powerless that they must endure all indignities from politicians and the abuse of the public funds given for the poor and sick in the commonwealth and see them largely wasted. In order to avoid this, we must, in the first place, do less backbiting among ourselves; we must treat and speak of other legally qualified and respectable medical men of other schools in a more fraternal manner, and then unitedly with these make known our views and demands; and the politicians will not dare to ignore them.

## THE RELATION OF THE CLINICAL LABORATORY TO THE HOSPITAL.<sup>1</sup>

By HENRY W. CATTELL, A.M., M.D., of Philadelphia, Pa.

In this paper it is taken for granted that it is no longer necessary to argue for the establishment of a clinical laboratory in connection with every hospital, be the latter ever so small or poorly equipped. The pathologist and his later offspring, the laboratory worker, have won their battle for recognition, and are now deservedly regarded by the medical profession as consultants. Let me cite an incident to show how matters stood but a dozen years ago. It was once my good fortune to be elected one of the pathologists to a well-known hospital, and, though acting as secretary of the medical and surgical staff, it was politely intimated to me that it was not customary for the pathologists of that institution to discuss or to vote on the questions which came up for discussion during the meetings of the board, except in so far as they pertained to the pathologic department.

The necessity of a clinical laboratory once recognized, its relation to the hospital proper gives rise to many perplexing problems, and much honest difference of opinion. It is to a few of these economic questions that I now wish to ask your attention.

Time does not permit me to discuss even briefly the building and equipment of a laboratory. My ideas upon the manner in which a clinical laboratory should be conducted are embodied in the methods employed at the Ayer clinical laboratory of the Pennsylvania hospital during the time I was its director.

This edifice was constructed under the supervision of a competent architect, the president of the board of managers, and the president of the medical and surgical staff of this institution at a cost of \$35,000. It is detached from the main hospital, and some \$10,000 were spent in furnishing and equipping it in accordance with suggestions made by the writer. The laboratory was placed under the charge

<sup>1</sup> Read before the American Academy of Medicine, St. Paul, June 3, 1901.



of a salaried director (a pathologist), who named, subject to the approval of the board of managers, a bacteriologist, a physiologic chemist, and a first and a second assistant, each of whom received compensation for his services, had his regular duties assigned to him, and had full authority in his own well-equipped laboratory, separate rooms being assigned to each department.

The director was expected to spend three consecutive hours of every week-day at the hospital, and each of the other members of the laboratory staff was supposed to work two hours of every week-day. The hours of service were so arranged that the laboratory was open for work from ten to four o'clock every week-day, and for two hours on Sunday. The resident physician, who had charge of the routine examination of the urine, was changed every three months. Two male orderlies, one to do the cleaning and the heavy work, and the other to look after the bodies, attend to post-mortems, prepare media, etc., were employed.

No work other than the examination of urine and of morbid specimens, and the making of post-mortems, was done except upon a request made out on a specially printed sheet, upon which the exact character of the work required was designated, and notice given as to whether or not the specimen was to be preserved. This request was sent to the laboratory, where the hour of its receipt was noted, preferably by a stamping clock, and entered in a book supplied for that purpose. Another sheet was then filled out with such information as might be of use to the one whose duty it was to perform the work, and at once sent to the department where it belonged. Upon this sheet the original record was kept, and when the work was completed it was returned to the director, whereupon a report stating the result was made out, and immediately forwarded to the resident physician in charge of the case and entered in the book above referred to. The record thus kept, included the number of the report, the time at which the request was received, the ward, bed, and name of the patient, the character of the work demanded, and by whom requested, the hour it was sent to the laboratory worker, when the report was returned, the diagnosis, and when

the final report was returned to the resident physician in charge of the case.

It often happens that a specimen must be sent to several departments for study. Thus, in a specimen of pleural exudate the bacteriologist would endeavor to discover the organism present, while the physiologic chemist would make qualitative and quantitative estimations of the albumen, note the specific gravity of the fluid, etc., and the histologist might be called upon for the purpose of examining any tissue present for malignancy. As fast as these reports are returned to the director they are sent to the clinician, and each investigator is kept informed by the director in regard to anything of interest found by the other workers in the laboratory. All the reports with the original request-blank are immediately filed in a specially prepared cabinet under the name of the patient, and both the name of the patient and the name of his disease are entered in a card index for future reference. While it is desirable that there should be a clerk to attend to these records in a large hospital, the director is kept fully informed as to what is going on in the laboratory either by making out the reports himself, or by reading them before they are sent to the one at whose request they were prepared. Such complete records will be found extremely valuable in many ways, as by them the responsibility for any delay or error may at once be fixed where it belongs, and statistical data of great value may be easily collected.

Let me now ask, and briefly answer: **WHAT ARE THE RELATIONS IN THE INTERNAL ADMINISTRATION OF A HOSPITAL OF THOSE CONDUCTING THE WORK IN THE CLINICAL LABORATORY TO THE BOARD OF MANAGERS, TO THE MEDICAL AND SURGICAL STAFF, TO THE CHIEF RESIDENT PHYSICIAN, TO THE RESIDENT PHYSICIANS, TO THE SUPERINTENDENT, TO THE NURSES, TO THE DISPENSARY STAFF, ETC.?**

*Relations of the Director to the Board of Managers of the Hospital.*—The director should preferably be elected by the board of managers on a recommendation furnished by the medical and surgical staff. He should be held strictly responsible for the proper administration of his department, should shape the policy of the laboratory so as to obtain the best possible results from

the amount of money allowed him, and should come in frequent touch with a special committee of the board of managers which should be appointed for this purpose, and to whom any matters requiring adjustment between the laboratory and the other departments of the hospital should be referred.

The board of managers should appropriate a certain sum of money for the running expenses of the laboratory, which should be dispensed only upon the order of the director. The director will sometimes be placed in a most embarrassing position by having to determine whether he should side with the staff or with the board of managers. On questions of medical ethics he would naturally fall in line with his confrères, but on many other questions of policy or expediency his duty may incline him to adopt the views expressed by the board of managers, who are supposed to have the true interests of the hospital at heart.

*Relations to the Medical and Surgical Staff.*—The director of a large laboratory should be a member of the medical and surgical staff; if the laboratory be a small one there should be a special committee of the staff to confer with the director on all matters of mutual interest. As every one has his peculiarities, these should be humored as far as possible by each side; but it is rather amusing to the workers in the laboratory to be requested to make a differential blood count of every case which is admitted to a ward, or to perform a daily examination of the sputum in a tuberculous case after large numbers of tubercle bacilli have once been found therein.

The younger members of the profession who are now elected to positions on the staff are more or less familiar with laboratory methods, but, being ambitious, they often make unreasonable demands upon the laboratory for work to be done for publication in their own writings. Having the request in writing, the director can more readily decide whether or not it is a reasonable one; if it will require an unusual amount of work, it may be referred to a special committee of the board of managers, with a request for more assistants and larger equipment. As the best of future physicians and surgeons will have spent a number of years in laboratory work they should have a special research room assigned to them in the laboratory with proper assistants,

so that their valuable investigations may be properly carried on with the minimum expenditure of time and labor.

*Relations to the Chief Resident Physician.*—The chief resident physician is sometimes a subordinate person who is under the control either of the board of managers, the superintendent, or the medical staff; in other cases he may have large powers delegated to him. He should be a welcome visitor to the laboratory, and every opportunity should be afforded him to carry on any line of work in which he may be interested; all reasonable requests for investigations to be carried on for the good of the patients within the hospital should be granted, for this, after all, is the primary object for which the hospital and laboratory were established.

*Relations to the Resident Physicians.*—The resident physician is a type of his own, although happily there are exceptions, and would, if left uncontrolled, make the laboratory a loafing place with spasmodic efforts at dabbling in original work. He can do more damage to apparatus, and make more trouble in one day than can be rectified in a week. He knows more and is desirous of learning less at this time than at any other period in his existence. He should, therefore, have his own work to do, and should be allowed to observe everything that is going on in the laboratory, with the understanding that he is not to meddle in its affairs, and is never to use special apparatus unless given permission by the one under whose charge it is kept. As it is a great convenience for the clinician, and in every way desirable for the resident, to study his cases at the bedside, there should be a ward laboratory attached to the medical and surgical wards, fitted up with the ordinary reagents, a microscope, hemocytometer, hemoglobinometer, etc. It is questionable whether the laboratory staff should be expected to give their time to teaching the residents. As such instruction is now given in our medical schools a graduate should know how to perform all routine tests before coming to the hospital.

*Relations to the Superintendent.*—The superintendent of a hospital often treats the medical and surgical staff with too little consideration. On account of his close contact with the board

of managers he has it in his power to become a powerful ally or enemy of the laboratory. He is rarely a medical man, and usually of necessity becomes more or less of a politician, owing to the number of diverse interests with which he comes in contact. There should be a distinct understanding that, while the care of the building is under his control, that of the apparatus and the work is in charge of the director.

*Relations to the Nurses.*—Nurses rarely have occasion to come to the laboratory except as visitors or with a patient, and are not often brought in contact with the laboratory worker except when he goes to the wards to get blood or make cultures. In such cases the presence and assistance of a nurse should always be requested.

*Relations to the Dispensary Staff.*—There should be in the dispensary a small laboratory sufficiently equipped to perform such ordinary tests as may be required. Anything of an interesting nature, or work requiring more elaborate apparatus or special technical training, should be referred to the clinical laboratory, but the work thus referred should not be of a routine nature.

*Shall the Director and His Assistants Be Paid for Their Services?*—The question whether or not the director and his assistants should be paid is one of extreme interest and importance. Undoubtedly, as things are now constituted, the director has a larger control and a broader field of usefulness if he accepts no stipend for his work but occupies the position with the understanding that he is receiving in the acquisition of knowledge a sufficient return for the labors which he may perform. Under such conditions the incumbent has great influence and can secure from the staff and board of managers a recognition which otherwise would not be accorded him. He can put in charge of the laboratory an assistant, who, being paid, employs his time in the performance of routine work, while the director can devote more time to scientific work, shape the policy of the laboratory, and diplomatically meet any friction which may arise. Unfortunately, however, there are few having the required knowledge, who are in possession of sufficient means to devote their lives to science without pecuniary compensation. Even if this were

not the case, there seems to be no reason why the director should not receive a salary, which, if he did not need the money, might be used to defray a part of the running expenses of the laboratory, or to add to its equipment. Indeed, it is a question whether paid laboratory work will not soon pass over to the pharmacist and the manufacturing chemist, while free work will be done by our boards of health and by our hospitals. Straws show which way the wind is blowing. A New York proprietary medicine house does laboratory work at prices inconsistent with their proper performance, and a Philadelphia filter establishment has one of the best equipped laboratories for paid work in Pennsylvania.

WHAT ARE SOME OF THE CAUSES OF FRICTION ARISING FROM THE NEW STATE OF AFFAIRS?—That causes of friction arise between the physicians treating the patients and the laboratory staff, none will deny. Happily they are growing fewer each year. Time permits me to discuss but two of these grounds of misunderstanding, *viz.*, the reporting of cases and the free examination of specimens.

*What Relations Should Exist Between the Laboratory Worker and the Clinician in Regard to the Reporting of Specimens and of Cases?*—One of the chief causes of misunderstanding between members of the hospital and laboratory staffs is the lack of an understanding as to whom belongs the right to report the case. Primarily, this belongs to the members of the staff in whose wards the patient was first treated, but credit should always be given in the clinic, or, in the publication of its reports, to those who perform laboratory work other than that of a routine nature. Should, however, any original investigations be carried on by the laboratory worker, or new discoveries be made by him, he should certainly have the right to report them, as well as collective investigations on subjects pertaining to his department. Thus, Dr. X., a clinician, might properly say in reporting a case of typhoid fever without even mentioning the laboratory: "The Widal test was positive, while there was a marked leucocytosis present of 31,000 whites per cmm.," while Dr. Y., a laboratory worker, might with equal propriety write without mentioning the clinician, "In 100 cases of typhoid fever so

diagnosed in the hospital, I found that ninety-two gave a positive Widal reaction on or before the twenty-first day of the disease. There were also three cases of leucocytosis, in each of which perforation was found *post mortem*." Happily, conjoint papers are now becoming the rule, and these are far more valuable than those published independently either by the staff or by the laboratory worker.

*Should the Members of the Staff Expect the Urine, Sputum, Tumors, Etc., of their Pay Patients both in and out of the Hospital to be Examined in the Laboratory Free of Charge?*—In reply to this question, I would say emphatically, *No!* It has always been a mystery to me why the older members of the medical profession should expect the younger physicians to examine blood, sputum, and tumors of their pay patients for nothing. Just as the hospital and dispensary have been abused by the laity, just so has the willingness of the pathologist to do work for nothing been taken advantage of by the clinician and the surgeon.

*Should the Worker in the Hospital Laboratory be Permitted to Perform and to Charge for Work Done for His Private Patients or for Others, and Shall Original Investigations Be Carried On in Such Laboratories?*—In institutions for public instruction the teachers are expected, and, in fact, are encouraged to use the laboratory and its apparatus for outside pay work; but I do not think such work should be done in a clinical laboratory connected with a hospital, either for the patients of the laboratory worker, or for the private patients of the members of the staff; a charge, however, should be made for any extraordinary work done for those receiving treatment in the private rooms of the hospital with which the laboratory is connected. The laboratory worker is apt to neglect his routine work for that which pays better; if he has any time and energy left after performing the work which belongs to the proper fulfilment of his duties, he should employ them in original investigations, for why should a hospital receive benefit from the scientific acquirements of others without in return contributing something toward the common stock of medical knowledge? Unfortunately, however, routine work leaves but little strength and time for original research. To encourage

original investigation, every large hospital should publish its proceedings, as such reports form an additional incentive for work.

Let each member of the staff and of the laboratory force know just "what he has to do, and do it" with tact and courtesy, and there need be no fear that their relations will not be, mutually, beneficial and pleasant.

#### DISCUSSION.

Dr. Gershom H. Hill, of Independence, Ia.:

I represent a hospital for the insane which has 1050 beds. There are five assistant physicians. A pathologist has charge of the laboratory. The assistant physicians are held responsible for the condition of the patients. They make post-mortems. For the last five years we have averaged fifty each year. The pathologist has charge of the head in a post-mortem and removes the brain, and the assistant who treated the patient makes the rest of the examination. The pathologist is required to visit wards containing acute cases every week. He has the right to ask the other physicians if they have patients in danger of death and is to go to the bedside and observe such symptoms of disease as are present. Another assistant aside from the two just mentioned is expected to make a record of everything declared to be found by the two assistant physicians conducting the autopsy. These notes become a permanent part of the hospital records after having been reduced to typewriting. We have meetings of the medical staff every day and it is the duty of the pathologist as soon as possible after an autopsy is made to report to the rest of the staff what is found microscopically or otherwise. To assist in this laboratory we have a woman nurse, because she can be had for less money than a medical student or a graduate in medicine. She attends to the cutting, staining and mounting of microscopic slides and to making records on catalogue cards. In summer time we also have a medical student who works for attendant's wages. It is wonderful how much work can be found in connection with a laboratory. The nurses in the hospital attend the post-mortem examinations and thus become more interested in the critical cases in their care.

Dr. W. W. Keen, of Philadelphia :

I am very glad indeed to have heard this paper of Dr. Cattell. I am less, interested perhaps, in the clinical laboratory from the administrative point of view than from the scientific and surgical. I think he has outlined very admirably the administrative point. I rise especially in reference to, and to back up practically, the first statement, that it is to be taken for granted that at the present time every hospital, small and large, should have a clinical laboratory. And, more than that, while at the



present time such a laboratory finds a large field of usefulness I believe in the course of the next 10 or 20 years the usefulness of such a clinical laboratory will be doubled or tripled. We shall not be satisfied to get occasionally a blood count; we shall need it more frequently and in some cases regularly, it may be daily or for more than once. The various questions pertaining to hemoglobin are all in the infancy of development and without the laboratory it is impossible to do that kind of work. This emphasizes another point which the community should understand—that the poorest patient in a well managed hospital gets better care than a well-to-do or even rich patient can at his own home. Therefore, it emphasizes not only the beneficent charity of such hospitals, but the wisdom which is recognized from day to day, that every patient, rich as well as poor, when desperately ill should be an inmate of a hospital rather than of his own home.

Dr. Gershom H. Hill:

I forgot to say that we have a large amount of clinical work in this laboratory and every assistant physician is expected to examine specimens of blood, urine, sputum, contents of the stomach, etc.

## TRANSACTIONS.

THE "ABERDEEN," ST. PAUL, June 1, 1901.

The Academy met at 11.15 A.M. and immediately went into executive session.

The minutes of the last meeting were read and approved.

The report of the council was presented and is as follows :

During the last executive session of the Academy at Atlantic City, certain resolutions were referred to the Council by the Academy, which adjourned before affording the Council an opportunity to report. These subjects were discussed at a meeting held on the evening of adjournment, and are now reported with the Council's recommendations.

I. Presented by Dr. Tuckerman : "That the Academy request the Council to discuss the advisability of establishing a Committee on Nomenclature, which shall establish a standard of medical and biologic nomenclature."

On motion, the resolution was referred back to the Academy with the opinion of the Council, that it is not practicable at the present time.

II. Presented by Drs. Elmer Lee and J. W. Grosvenor : "That when the Academy meets in connection with the American Medical Association, it meet on the Friday and Saturday of the same week instead of the Saturday of the week previous and the Monday of the same week as now."

The Council recommends that this resolution be not adopted.

III. Presented by Dr. G. W. McCaskey : "That the Council be requested to hereafter limit the time for reading papers to fifteen minutes."

The resolution was concurred in, and the rule published in connection with the program for the present meeting.

In this connection we call to your attention the early method of procedure in the Academy whereby every resolution was referred to the Council without debate, until it was reported back to the Academy by that body.

From the very nature of our work, there is constant danger of the effort to secure the services of the Academy to turn the grindstone for sharpening various uniquely designed axes. Under the spur of the moment, it is possible to stampede even the Academy, and no amount of leisure repentance would atone for the action in haste. No proper object will suffer if all resolutions are referred to the Council, if it is required to report them back to the Academy at the next executive session following their introduction; unless the Academy itself would specifically instruct otherwise. Section 2, Article II of the By-laws says: "It shall be the duty of the Council to consider and recommend plans for promoting the

objects of the Academy," but the rule fails to enjoin the reference of all resolutions to it.

It is therefore recommended that the present Article III of the By-laws be made Section 1 and a new section to be called Section 2, be adopted, to read :

"All motions or resolutions, excepting those which relate to ordinary and routine business, shall be referred to the Council without debate. Unless otherwise instructed by the Academy, the Council shall report the resolution back with its recommendation at the next executive session following the introduction of the resolution."

The meeting of the Fellows residing in the vicinity of Philadelphia on March 16, 1901 was a pleasant innovation, and, it is hoped, will be but the initial meeting of many in various parts of the United States. At the meeting in Philadelphia, it was suggested that the Academy, while not limiting the number of these local gatherings in any year, make provision for at least four. This can be done by selecting Vice-Presidents to represent separate geographic districts, and then make it the duty of each Vice-president to arrange a meeting somewhere in his district.

The past year has been the first when the obligation of annual dues has been resting on any member, the 37 members elected at Columbus being so obligated. All who did not respond to the first notice of their indebtedness received another statement early in January. Notwithstanding, 8 have not as yet paid, or about 22 per cent. This suggests the difficulty in keeping the membership in full standing largely through a neglect to promptly reply to the notice, and then forgetting about it; and also raises the question whether it might not be well to offer the choice of a life membership fee. If this is done, the amounts so paid should be carefully invested, and the interest alone used from year to year.

The wisdom of insisting upon the presentation of an abstract of the papers to be read 30 days before the meeting in order to secure a place on the program, and of not issuing a preliminary program is manifested in the experience of the present year. No less than 32 papers were promised for the meeting, but only 21 are to be found on the program.

The necrology list for the past year is unusually large.

1. John E. Davies, Madison, Wis., died January 22, 1900: A.B. Lawrence University, 1862: M.D. Chicago Medical College, 1868: elected 1889.

2. James T. Whittaker, Cincinnati, died June 5, 1900: A.B. Miami University, 1863: M.D. University of Pennsylvania, 1866: elected 1882.

Member of the Council, 1891, 1896.

3. Alfred Hitchcock, Farmington, Me., died June 14, 1900: A.B. Bowdoin College, 1881: M.D. Medical School of Maine, 1883: elected 1888.

4. J. H. W. Chestnut, Philadelphia, died while at Dutch Harbor, Alaska, August 5, 1900: A.B. Central High School of Philadelphia, 1867: M.D. University of Pennsylvania, 1871: elected 1884.

Member of the Council, 1899.

5. Crawford Irwin, Hollidaysburg, Pa., died October 7, 1900: A.B. Jef-

erson College, 1844 : M.D. Jefferson Medical College, 1847 : elected 1879.

6. William W. Browing, Brooklyn, died October 3, 1900 : A.B. Yale College, 1873 : M.D. Bellevue Hospital Medical College, 1884 : elected 1890.

7. Ross R. Bunting, Philadelphia, died October 9, 1900 : A.B. Central High School of Philadelphia, 1853 : M.D. Jefferson Medical College 1856 : elected 1886.

8. Rufus P. Lincoln, New York, died November 27, 1900 : A.B. Amherst College, 1862 : M.D. Medical School of Harvard University, 1868 : elected 1883.

Vice-President, 1894

9. J. Henry Fruitnight, New York, died December 18, 1900 : A.B. College of the City of New York, 1872 : M.D. Bellevue Hospital Medical College, 1875 : elected 1878.

10. Henry J. Herrick, Cleveland, died January 28, 1901 : A.B. Williams College, 1858 : M.D. Rush Medical College, 1861 : elected 1889.

11. Gustavus Franklin, Chillicothe, O., died February 6, 1901 : A.B. Marietta College, 1859 : M.D. College of Physicians and Surgeons, New York, 1862 : elected 1877.

12. Horace G. Hill, Philadelphia, died February 14, 1901 : A.B. Williams College, 1879 : M.D. Jefferson Medical College, 1882 : elected 1897.

13. Richard J. Dunglison, Philadelphia, died March 4, 1901 : A.B. University of Pennsylvania, 1852 : M.D. Jefferson Medical College, 1856 : elected 1878.

Secretary, 1878-1889 ; Treasurer, 1879-1889 ; Vice-President, 1890 ; Member of the Council, 1891.

14. R. Erskine Johnston, Danville, Pa., stabbed by a patient in the Insane Hospital, and died April 3, 1901 : A.B. Westminster College, 1889 : M.D. College of Physicians and Surgeons, Baltimore, 1894 : elected 1895.

We present, as supplementary to this report, a number of applications for membership. Some of these are recommended on equivalent qualifications. The Council has endeavored to carefully examine the qualifications of all such, and to judicially determine if the applicant is fairly eligible. Of course the personal element cannot be entirely eliminated. A brief statement accompanies each recommendation of this class of applicants.

Because of the possibility of electing members but once a year, it frequently happens that applications are presented to the Council during the last session of the Academy for the year, affording no opportunity for the Council to meet and discuss the applications. It has been the custom heretofore for the Secretary to interview each member of the Council in the room, and present the name if unanimous consent is given. It might be well to limit this method of procedure to those who possess the regular qualifications, and establish the rule that applications which claim equivalent qualifications can be acted on by the Council only when regularly constituted.

It might also be well to give the local gatherings the power to elect to membership provided the applicant possess the full academic qualifications, is approved by at least five members of the Council, and receive the unanimous vote of the members present, provided there are enough to make a quorum of the Academy.

The question of Honorary Membership should receive attention. Fortunately the Academy has not been anxious to elect as many as the constitution permits, and this custom might be conserved, should a Committee on Honorary Members be appointed with instruction to report one name each year to be honored by the Academy. If at the same or a subsequent meeting, the honor could be bestowed publicly, it might add dignity to the gift, and make an interesting feature of the meeting.

The report of the Council was on motion received and its recommendations adopted.

Following this report, a number of applications for fellowship were presented with the favorable recommendation of the Council. The applicants were duly balloted for and elected.

The report of the treasurer was read and referred to an Auditing Committee, consisting of Drs. C. M. Culver, of Albany, N. Y., and C. S. Sheldon, of Madison, Wis.

The president appointed Drs. L. Duncan Bulkley, of New York, G. Hudson-Makuen, of Philadelphia, and Thomas D. Davis, of Pittsburg, on the Nominating Committee, and Drs. Edward Jackson, of Denver, Leartus Connor, of Detroit, and Henry W. Cattell, of Philadelphia, on the Committee to Suggest Candidates for Honorary Membership.

At this point the Academy suspended its executive session and listened to the reading and discussion of papers.

The Committee on Time Allowance in the Combined Collegiate and Medical Course reported progress. Dr. A. L. Benedict, the chairman, because his time was so much occupied in the preparation of the anthropologic exhibit at the Pan-American exposition, was unable to give it the attention he had planned. The committee was continued, upon motion.

Dr. T. D. Davis, of Pittsburg, read the first paper, on "The First Year Medical Curriculum," which was discussed by Drs. Leartus Connor, of Detroit; V. C. Vaughan, of Ann Arbor; Albert Goldspohn, of Chicago; Edward Jackson, of Denver; L. Duncan Bulkley, of New York, and T. D. Davis.

At the conclusion of the discussion, recess was taken until

three o'clock, when the Academy again assembled and engaged in the first symposium, on "Reciprocity in Medical Licensure."

The following papers were presented :

1. "Is the Demand for Reciprocity Based on Fact or Fancy?" by Dr. Charles McIntire, of Easton, Pa.
2. "The Desirability of Reciprocity in Medical Licensure," by Dr. J. H. Hall, of Denver.
3. "Reciprocity in Medical Licensure from the Standpoint of a Physician Who Changes His Residence," by Dr. Edward Jackson, of Denver."
4. "Away with Reciprocity," by Dr. Charles McIntire, of Easton, Pa.

Following the formal papers, the subject was discussed by Drs. Leartus Connor, of Detroit ; L. Duncan Bulkley, of New York ; Albert Goldspohn, of Chicago ; C. S. Sheldon, of Madison, Wis. ; H. Bert Ellis, of Los Angeles ; C. T. McClintock, of Detroit ; T. D. Davis, of Pittsburg ; V. C. Vaughan, of Ann Arbor ; L. B. Tuckerman, of Cleveland ; Charles McIntire, of Easton, Pa.; and Edward Jackson, of Denver.

Dr. L. Duncan Bulkley moved that a committee be appointed to take the question into further consideration and report at the next meeting. The motion was referred to the Council under the rules.

The Academy then took recess until 8.30 P.M., when it listened to the annual address of the president. The first vice-president, Dr. C. M. Culver, of Albany, N. Y., occupied the chair. Dr. Risley selected for his subject : "Some Ethical and Sociological Relations of the Physician to the Community."<sup>1</sup>

At the conclusion of the address, there was a very pleasant informal reception by the president to the fellows and their friends, the Academy adjourning until Monday morning.

#### MONDAY, JUNE 3, 1901.

The Academy met in executive session at ten o'clock in the morning, President Risley in the chair.

The council submitted the following report :

In the report of the Council at the session on Saturday last, several of its suggestions were adopted which require additional legislation on the part of the Academy to make them effective. These items are :

<sup>1</sup> See p. 569 of this number.

I. The amount of the Life Membership fee. We suggest the following amendment to the Constitution : to Article VII, add to the Section the words : " But if any fellow pays the sum of twenty dollars at one time, he is freed from the payment of any subsequent annual dues," and make this section, Section 1. Then add a new section to be numbered Section 2. "The money received from the payment of life dues shall be invested as the Council may direct, and the interest only can be expended."

II. In order to permit the local gatherings elect to membership in the Academy, we suggest the adoption of the following by-laws :

Three new sections to Article IV, as follows :

"SECTION 2. The Council may call special meetings of the Academy, whenever, in its judgment, it is necessary ; and it shall call a special meeting whenever it is requested to do so by twenty-five fellows of the Academy.

"SECTION 3. At any special meeting only such business can be transacted as is mentioned in the call for the meeting.

"SECTION 4. The minutes of all special meetings shall be sent to the Secretary of the Academy within 30 days after the meeting and be presented at the annual meeting of the Academy for its information, and with the exception of the fellows elected—be subject to its revision or veto. And the transactions of all special meetings shall be a part of the proceedings of the year designated by the previous annual meeting."

On motion the report of the Council was received and the recommendations, including the amendments to the by-laws, were adopted by a unanimous vote.

The Council also presented an additional list of applications for membership with its favorable recommendation. By unanimous consent the secretary was authorized to cast the ballot for the Academy and they were elected.

The Council presented the resignations of Drs. Randolph Faries, of Philadelphia, M. A. Crockett, of Buffalo, and T. U. Coe, of Bangor, Maine, with the recommendation to accept, which was done upon motion.

The secretary presented some sample sheets of the manuscript catalogue of the fellows, with portraits, for the inspection of the Academy.

Dr. C. M. Culver, the chairman of the Auditing Committee, reported the examination of the treasurer's books, item for item ; the books were found to agree with the report submitted and were reported as correct. This report was adopted on motion.

The Academy arrested its executive session at this point and took up the symposium of the day—Institutionalism. The following papers were read :

1. "The Abuses of Institutionalism,"<sup>1</sup> by Dr. Eugene S. Carpenter, of Columbus, O.
2. "The Advantages of Civil Service Principles in the Conduct of State Hospitals for the Insane,"<sup>2</sup> by Dr. Gershom H. Hill, of Independence, Ia.
3. "Hospital Mismanagement,"<sup>3</sup> by Dr. Albert Goldspohn, of Chicago.
4. "The Need of National Cooperation in the Establishment of Sanatoria for Tuberculosis,"<sup>4</sup> by Dr. A. Mansfield Holmes, of Denver.
5. "Hospitals and Sanatoria, Founded, Owned, and Controlled by the Medical Profession—a Case in Hand,"<sup>5</sup> by Dr. H. Bert Ellis, of Los Angeles.
6. "Tendencies in Hospitals for the Insane with Some Suggestions,"<sup>6</sup> (by title), by Dr. J. E. Robbins, of Danville, Pa.
7. "Institutionalism" (by title), by Dr. John Curwen, of Harrisburg, Pa.
8. "Care of Epileptics in Massachusetts" (by title), by Dr. Everett Flood, of Palmer, Mass.
9. "Institutionalism: What is It?"<sup>7</sup> (by title), by Dr. Elmer Lee, of New York.

The general discussion was participated in by Drs. Leartus Connor, of Detroit; Edward Jackson, of Denver; L. B. Tuckerman, of Cleveland; H. A. Tomlinson, of St. Peter, Minn.; C. S. Sheldon, of Madison, Wis.; G. Hudson Makuen, of Philadelphia; L. Duncan Bulkley, of New York; S. D. Risley, of Philadelphia; E. S. Carpenter, of Columbus, O.; G. H. Hill, of Independence, Ia.; Albert Goldspohn, of Chicago; and A. Mansfield Holmes, of Denver.

At the conclusion of the discussion the Academy took a recess for luncheon. Upon reassembling, the reading of papers was continued, as follows:

<sup>1</sup> See p. 594 of this number.

<sup>2</sup> See p. 601 of this number.

<sup>3</sup> See p. 610 of this number.

<sup>4</sup> See p. 637 of this number.

<sup>5</sup> See p. 617 of this number.

<sup>6</sup> See p. 630 of this number.

<sup>7</sup> See p. 621 of this number.

<sup>8</sup> See p. 622 of this number.

<sup>9</sup> See p. 626 of this number.



1. "A Suppressed Educational Problem," by Dr. James L. Taylor, of Wheelersburg, O.

2. "The Relation of the Clinical Laboratory to Its Hospital," by Dr. Henry W. Cattell, of Philadelphia.

Dr. Cattell's paper was discussed by Drs. G. H. Hill, of Independence, Ia., and W. W. Keen, of Philadelphia.

3. "The Necessity of Revising Medical Fees," by Dr. P. Maxwell Foshay, of Cleveland.

4. "Refraction," by Dr. James A. Spalding, of Portland, Me.

Dr. Spalding's paper was read by the secretary in the absence of the author, and was discussed by Drs. L. B. Tuckerman, of Cleveland, Leartus Connor, of Detroit, and S. D. Risley, of Philadelphia.

At the conclusion of the discussion, the Academy entered upon an executive session.

The Nominating Committee reported, putting in nomination :

*For President*—Dr. Victor C. Vaughan, Ann Arbor, Mich.

*For First Vice-President*—Dr. James L. Taylor, Wheelersburg, O.

" *Second* " —Dr. W. A. Newman Dorland, Philadelphia.

" *Third* " —Dr. H. P. Ritchie, St. Paul.

" *Fourth* " —Dr. H. Bert Ellis, Los Angeles.

" *Secretary and Treasurer*—Dr. Charles McIntire, Easton, Pa.

" *Assistant Secretary*—Dr. Alex. R. Craig, Columbia, Pa.

By unanimous consent, Dr. Edward Jackson was instructed to cast the ballot for the candidates presented and they were elected.

The Committee on the Nomination of Honorary Members reported through Dr. Jackson, recommending the election of Dr. Rudolph Virchow, of Germany, and Edward Nettleship, of England. These nominations were accepted by the Academy and the secretary was instructed to cast a ballot for the Academy.

It was moved by Dr. Jackson and duly seconded that the thanks of the Academy be extended to the retiring officers, the Committee on Program and the Local Committee for their labors in the preparation of what had proved to be a successful meeting of the Academy. The motion was adopted unanimously.

Dr. Risley appointed Drs. L. Duncan Bulkley, of New York, Edward Jackson, of Denver, and T. D. Davis, of Pittsburg, as the committee to continue the investigation on reciprocity in medical licensure, to report at the next meeting.

A recess was taken until 8.30 P.M., when the social session was held. A very enjoyable time was had. During the evening, Dr. Risley resigned the presidency to the president-elect, Dr. V. C. Vaughan.

On motion, the president was empowered to make the usual appointments at his leisure, and the Academy adjourned.

The following persons were elected to membership during the meeting :

James H. McBride, Pasadena, Cal.; Daniel Robert Brower, Chicago; J. L. Hildreth, Cambridge, Mass.; Sydney Leach, Tuscaloosa, Ala.; W. G. Somerville, Tuscaloosa; B. L. Wyman, Tuscaloosa; J. J. Craig, Columbia, Pa.; H. F. McGaughey, Winona, Minn.; L. P. Hamburger, Baltimore; C. A. Penrose, Baltimore; Mary R. Noble, Philadelphia; W. G. Schawffler, Lakewood, N. J.; Edith W. Cadawallader, Philadelphia; H. W. Sheldon, Negawancee, Mich.; John Bruyere, Trenton, N. J.; J. L. Goodale, Boston; W. W. Ford, Montreal; Julius Friedenwald, Baltimore; H. M. Moore, Oxford, O.; W. E. Brunner, Cleveland, O.; J. S. Davis, Jr., Baltimore; C. W. Bray, Biwabik, Minn.; F. P. Strathern, St. Peter, Minn.; A. H. Whitridge, Baltimore; G. L. Hummer, Baltimore; Ida R. Gridley Case, Collinsville, Conn.; L. M. Crafts, Minneapolis, Minn.; G. D. Head, Minneapolis, Minn.; Frederic Coggeshall, Boston; Egbert Le Fevre, New York; W. F. Campbell, Brooklyn, N. Y.; F. M. Tiffany, Stamford, Conn.; G. S. Machan, Providence, R. I.; Gertrude W. Light, New York; Alfred Friedlander, Cincinnati; O. B. Pancoast, Baltimore; Geo. Edward Tyler, Denver, Colo.; Henry Ashton Tomlinson, St. Peter, Minn.; Roland G. Curtin, Philadelphia, Pa.; John S. Mott, Kansas City, Mo.; Arthur R. Baker, Cleveland; B. E. Fryer, Kansas City, Mo.; J. T. Cahill, Lawrence, Mass.; C. M. Leighton, Portland, Me.; E. J. McDonough, Portland, Me.; Chas. B. Wetherle, Portland, Me.; Alfred Mitchell, Brunswick, Me.; Susan Rogers Corson, Norristown, Pa.

#### FELLOWS AND HONORARY MEMBERS IN ATTENDANCE AT ST. PAUL.

CALIFORNIA—Los Angeles, Drs. F. D. Bullard, H. Bert Ellis. Pasadena, Dr. James H. McBride.

COLORADO—Denver, Drs. E. P. Hershey, A. M. Holmes, Edward Jackson.

ILLINOIS—Chicago, Drs. Albert Goldspohn, W. L. Hall.

IOWA—Independence, Dr. Gershom H. Hill. Ottumwa, Dr. W. B. La Force.

KENTUCKY—Russellville, Dr. M. E. Alderson.

MASSACHUSETTS—Boston, Dr. H. O. Marcy.

MICHIGAN—Ann Arbor, Dr. V. C. Vaughan. Detroit, Drs. Leartus Connor, C. T. McClintock. Ishpeming, Dr. S. A. Felch. Jackson, Dr. C. H. Lewis.

MINNESOTA—Faribault, Dr. A. C. Rogers. Minneapolis, Drs. B. M. Behrens, C. H. Hunter, Wm. R. Murray, Horace Newhart, H. L. Staples. St. Paul, Drs. H. P. Ritchie, J. L. Rothrock. St. Peter, Dr. Henry A. Tomlinson. Winona, Dr. H. F. McGaughey.

MISSOURI—Kansas City, Dr. J. S. Mott.

NEW YORK—Albany, Dr. C. M. Culver. New York, Drs. L. Duncan Bulkley, Geo. Henry Fox. Syracuse, Dr. H. D. Didama.

OHIO—Cleveland, Drs. L. B. Tuckerman, A. R. Baker. Columbus, Dr. E. G. Carpenter. Wheelersburg, Dr. James L. Taylor.

PENNSYLVANIA—Allegheny City, Dr. W. M. Beach. Columbia, Dr. A. R. Craig. Easton, Dr. Charles McIntire. Norristown, Dr. J. K. Weaver. Philadelphia, Drs. H. W. Cattell, W. A. N. Dorland, A. A. Eshner. G. M. Gould, W. W. Keen, G. Hudson Makuen, S. D. Risley. Pittsburg, Dr. T. D. Davis.

WISCONSIN—Madison, Dr. C. S. Sheldon.

#### APPOINTMENTS BY PRESIDENT VAUGHAN.

Additional Members of the Council—Drs. C. M. Culver, Albany, N. Y.; T. D. Davis, Pittsburg, Pa.; J. T. Searcy, Tuscaloosa, Ala.

Committee on Program—Dr. G. Hudson Makuen, of Philadelphia, with the president and secretary.

Committee on Arrangements—Drs. C. M. Culver, Albany, Chairman; P. R. Furbeck, Gloversville; W. P. Clute, Schnectady; N. S. Cheeseman, Scotia; Mahlon Felter and R. Halsted Ward, both of Troy.

## SECRETARY'S TABLE.

The assassination of President McKinley affords a theme for journals of every type, demonstrating, as no other method can, the profound impression made upon the American people by the act and the conditions making such a foul crime possible. The Bulletin is issued too long after the deed to add to the volume of discussion, except in this: Is there a physical basis assisting in the development of criminals of this type? Nor for a moment is it to be suggested that moral responsibility does not exist, nor necessarily even mental alienation. But the rather: are the physical surroundings—the housing, the condition of the atmosphere, relative density of the population, the food, the occupation and other factors of a similar nature—in any way contributory to that condition of the man which, in its final development, produces a Czolgosz? If any of the conditions, or any combination of them, are contributory, then the physician should study them, and for the same reason that he investigates the same conditions for the purpose of reducing the death-rate of a community. That the subject is much more complex and cannot be solved by such investigations alone, is no reason why the research should not be made, to assist in the more comprehensive study of the causes, in order that a means of prevention may be discovered, at once safe, efficacious, and humane.

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The first Egyptian Medical Congress will be held at Cairo in December, 1902. The secretary-general, Dr. Voronoff, makes the early announcement to secure the cooperation of physicians of other lands, as some of the topics for discussion are of more than national interest. The subjects suggested are: Those which pertain to diseases prevailing in Egypt; and those pertaining to the epidemics which regularly visit Egypt and thereby menace the other countries bordering upon the Mediterranean. Already the physicians of Egypt have promised a number of papers. Dr. Voronoff promises additional information in later circulars.

The August number contained an error in a familiar quotation that is both inexcusable and inexplicable. It should have been caught by any pair of the various eyes that search for errors in the Bulletin before it goes to press. There is that consolation, that even the minor articles in the Bulletin are read, and we are grateful to the kind friends who called attention to the error.

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The remaining papers of the St. Paul meeting of the Academy will appear in the next (December) number of the Bulletin, to be followed in later numbers by the transactions of the Confederation of Medical Examining Boards, the biennial handbook of the Academy, and the usual annual revisions of laws regulating the practice of medicine, results of state medical examinations, etc.

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The Chicago Medical Society has organized a banquet and celebration in honor of Nathan Smith Davis, the founder of the American Medical Association, and an honorary member of the American Academy of Medicine. The function will take place at the Auditorium Hotel, Chicago, on Saturday evening, October 5th. The Bulletin wishes to extend its congratulations, and in this we will be joined by the medical profession of America, every one of whom, who knows of the celebration, will be present in the spirit at that occasion.

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### BOOK NOTICES.

**ETIDORPHA OR THE END OF THE EARTH. THE STRANGE HISTORY OF A MYSTERIOUS BEING AND THE ACCOUNT OF A REMARKABLE JOURNEY.** BY JOHN URI LLOYD. Eleventh Edition. Revised and Enlarged. New York: Dodd, Mead & Co. 1901. pp. 375. Cloth. Illustrated. Price, \$1.50.

While novel enough this book is not a novel in the usual acceptance of the word, and while its title is the reversing of Aphrodite, it is not a love story. Prof. Lloyd attempts a new solution of the fate of Morgan, who was abducted by the Masons in Western New York, during the first quarter of the last century, and, incidentally, attributes to this organization the study of the occult. With this historic basis, he sends the victim into the

nether world, for a series of remarkable adventures, which the hero is permitted to relate to the narrator of the story, somewhat after the method of a spiritualist's seance.

At the top of p. 68 we read : "In human affairs men judge and act according to the limited knowledge at command of the multitude." This variation of *ne sutor ultra crepidam* forestalls criticism. Prof. Lloyd has a lively imagination but he uses it defensively. Poe or Verne would have given their thoughts free rein and carried the reader along with them in the wondrous journey, without even providing for the possible unimaginative reader. The book raises many questions which the future psychologist may answer definitely, and is helpful in that it presents these questions in a pleasing way to those who have not been engaged in either research or pseudo-research in these fields of inquiry.

**PRACTICAL FIRST PRINCIPLES.**—Simplifying the study of normal and abnormal structure and function, and aiding diagnosis. Designed for the use of students and practitioners of medicine. By A. H. P. LEUF, M.D., associate editor of *The Medical Council*, Philadelphia. Published by The Medical Council, Twelfth and Walnut Sts. 8vo., 105 pages, nearly 50 illustrations, almost all new and original. Price, \$1.00 net.

This is a "reading-without-tears" book on histology, physiology, and pathology, wherein, to quote from the preface, "a backward student (may receive) a new impetus upon the highway of medical learning."

The titles of its 10 chapters are: The Cell; Tissues; Organs, Apparatuses, Systems; Our Body; Cell Nutrition; Cell Physiology; Cell Pathology; General Principles; Illustrative Application of the Foregoing General Principles; Nomenclature.

The author is careful to give a definition of the technical words with their derivation at the bottom of the page where they are used. One of these must be a slip—p. 31. Apparatuses, from the prefix *prae*—from, and *parare*—prepare.

The book gives an easily understood view of the subject, and might be more useful for the information of a non-technical reader than an intending physician.

# BULLETIN

OF THE

## American Academy of Medicine

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THE AMERICAN ACADEMY OF MEDICINE is not responsible for the sentiments expressed in any paper or address published in the BULLETIN.

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### A SUPPRESSED EDUCATIONAL PROBLEM.<sup>1</sup>

BY JAMES L. TAYLOR, A.M., M.D., Wheelersburg, Ohio.

Anciently, when people undertook to account for the evil which everywhere confronted them among their fellowmen—especially when they saw what seemed to them unmerited suffering falling upon the innocent and helpless, often in their own households, as well as in the world at large—they shrank from imputing the blame to their venerated gods. It was to a separate creation—I hardly need say—whom they called Furies that they ascribed these manifestations of malevolence. These swift-moving dispensers of evil presided at the birth and the death of the unfortunate. They not only meted out legitimate punishment to sinners, but were said to madden transgressors into the commission of further crimes that worked out their own punishment. At unhappy marriages they were the *pronubae*—or brideswomen—for the misguided pair. And in general they were thought to be responsible for most of the mischief, sorrow, and suffering which afflicted the world. To a great degree the same unhappy conditions still prevail among men that existed then, but we have long since outgrown the beliefs of those primitive days. The earth still teems with misery. Hospitals are multiplied for the care of the sick as they never were before. Asylums provide a refuge for the dumb, the blind, the idiotic, the insane, the epi-

<sup>1</sup> Read before the American Academy of Medicine at St. Paul, June 3, 1901.

leptic, for orphans and the defective generally. Tramps and vagabonds are in evidence everywhere, while the criminal classes are believed to be on the steady increase. Infants are born with inherited deformity and disease, and adolescence, in the bloom and promise of an opening life, is cut short on every hand by premature death. Mankind indeed no longer invokes a belief in the invisible powers of evil to explain the melancholy spectacle, and this is certainly an immense gain. What we now confront is the fact that much of the evil observed might be prevented, and that its continuance is largely due to ignorance—ignorance of the laws of inheritance, of reproduction, of physiologic selection, ignorance (in short)—of human biology.

While the humane associations of organized society are everywhere making prodigious efforts and sacrifices for the relief of existing suffering, and the amelioration of the hard lot of the unfortunate, what is being done to dispel the dense universal ignorance of the laws of reproduction which pervades almost every stratum of society alike? Verily, almost nothing. Nay, in many quarters is it not accounted a safeguard of purity to repress biologic knowledge especially during the period of susceptible youth? Like the custom in oriental countries of hiding with thick veils the faces of their women—so the polite society of civilization rigidly taboos all knowledge of nature's laws in the domain of human reproduction. Thinking people have long recognized the fact that the suppression of such knowledge—the holding of even remote allusions to it as a breach of decorum, thus compelling what may be known to be obtained through surreptitious sources—is most damaging to the cause of good morals. The secret avenues whence such knowledge may be obtained are almost necessarily environed with the concomitants of immorality. And the result is that the great truths of human biology, considered as a means of preventing physical and moral degeneracy, of maintaining and propagating in coming generations what is best in the present, are in general but little known.

It is not so much that special forms of degeneration are here and there locally reproduced—as the goitrous generations of the Alps, the tribal inferiority of the Cagots in the Pyrenees,



the crooked-legged children of Glasgow, the mute offspring resulting from intermarriage of inmates of the deaf-mute asylums, and many others. What is especially referred to is the absence of positive knowledge concerning physiologic selection among all classes, even the most cultivated, everywhere.

Some years ago, in a series of Monday noon lectures addressed to most select audiences in the city of Boston, the philosophic lecturer, whose publications enjoyed a wide celebrity, presented the view that the true basis of normal, happy selections among people lay in a sort of magnetic attraction exerted towards each other by kindred spirits, a species of clairvoyant insight, if you please, which might be interpreted as the pre-ordained sanction of desirable unions. The whole theory smacked of the delusions of a love-sick sentimentality. The physical and moral basis of selection—heredity, character, consanguinity, transmitted or acquired disease and disease tendencies—were all ignored. When the very elect in the sphere of culture are treated to such quixotic theories, is it surprising that scientific physiologic selection should have such scant recognition in the world at large?

What is actually well known in regard to selection with a view to the upbuilding of the best of which the individual may be capable is indeed sufficiently limited. The scope of our knowledge in this sphere needs to be greatly widened. Here is a field open and but little explored, which offers the greatest incentives for scientific research. It is humiliating to note that the greatest activity hitherto displayed in this direction has been in the line of breeding up and improving animals for purposes of mercenary gain. Here and there one like Sir Francis Galton has taken up the matter seriously with a view to systematic studies in humanity. He distributed as an incentive to the making of vital statistics in families, £500 to such British subjects as would furnish him the best extracts from their own family records. His collection comprises full returns of great scientific value from about 160 families embracing a large number of individuals. The few who have thus sought to enlarge knowledge in this field are read only in scientific treatises, and their influ-

ence scarcely extends beyond the scientific specialist and the book-worm. An unexpected and curious revelation of these records worthy of note here was that the quality of good temper or bad temper in the individual—a quality most conspicuous and easy of observation—exerted no perceptible influence in the matter of selection.

Galton also pointed out and emphasized the folly of that pride which points to distant ancestors in a long genealogic line as the support of a boasted lineage. For the qualities derived from a remote ancestor are infinitesimal compared with those transmitted by immediate progenitors of the first and second antecedent generations. Hence, in order to avoid degeneracy the constant necessity of wise selection presses alike upon every new generation. There is no escape from Nature's edict—"Blood will tell." But it is not the microscopic modicum coming from a far-off illustrious ancestor. The transforming and depressing leaven of a *near* degeneracy is the blood which no "blue" admixture can again raise to the original level.

The qualities which inhere in a given stock, which confer individuality and those positive characteristics on which tenacity and permanence depend, seem to be in large measure due to maternal transmission. Because man is larger, stronger, more aggressive and masterful than woman, it has been natural to assume that he is the more important, the prepotent factor in generation. There are some opposing considerations of great force, however, which make it questionable whether the assumption be true. It is well known, for example, that in the female organism the sympathetic nervous system—that system on which growth, nutrition, elimination and the functions of organic life mainly depend—is much more highly developed than in the male. Whether as a result of this or not, it is, however, equally well known that in every compilation of data based upon the ages of very old people, made to assist in studies of longevity, the females in these groups of old people outnumber the males more than two to one. When we reflect that the birth of male children exceeds that of females, and that far more male children than females die before the fifth year, and remember

that the perils and disasters of the child-bearing period in women about equalize the risks to life encountered by men in the greater exposure of their avocations, the uniformly greater longevity of females, would seem to admit of but one interpretation, *vis.*, the possession by the female of relatively greater vitality.

It certainly is true also, if carefully compiled records prove anything, that the mother transmits certain well-defined diseases as consumption and hemophilia with much greater frequency than the father. These diseases have well-marked characteristics easily susceptible of general recognition, and it seems established beyond all reasonable doubt, that the risks of such inheritance from the mother, wherever these diseases exist, are greater than from the father. The inference from these observations is that, while the father may originate variations, accentuate natural mental and physical endowments, engraft personal excellencies and defects on the offspring, there inheres in the mother a greater degree of vitality or life-force wherewith is supplied the broad background, the substratum of ethnic qualities which gives relative position, permanence and individuality to the race stock. According to these deductions the female is the chief conservator of family characteristics, and female offspring is believed to inherit as well as transmit paternal endowments more frequently and faithfully than do male children. Mr. Havelock Ellis, in his "Study of British Genius"—a biologic contribution of great value lately appearing in *Popular Science Monthly*, based on the recently published "Dictionary of National Biography," in 63 volumes, and embracing 902 persons of preeminent intellectual ability scattered through a period of 15 centuries—says :

It seems probable therefore that women have a still more marked tendency than men to inherit intellectual aptitudes from their fathers. It would be interesting to inquire into the moral and emotional qualities, the "character," of the parents. This, however, is extremely difficult and I have not attempted it. If we could do so we might find that the mothers of eminent men have had greater influence on their sons than the facts, so far as it has been possible to ascertain them, regarding the transmission of purely intellectual aptitudes would lead us to believe. In a great many cases the mother was a woman of marked piety, and we are frequently led to infer an unusual degree of character on the

part of the mother, if not of the father. Moral qualities are quite as essential to most kinds of genius as intellectual qualities, and they are, perhaps, even more highly transmissible. They form the basis on which intellectual development may take place, and they may be transmitted by a parent in whom such development has never occurred. The very frequent cases in which men of eminent intellectual ability have declared that they owed everything to their mothers (as a remark in a letter of Huxley's to the author—"Mentally and physically I am a piece of my mother"), have sometimes been put aside as the expressions of an amiable weakness.

It requires some credulity, however, to believe that men of preeminent, or even less than preeminent, intellectual acuteness are unable to estimate the character of their own parents. The frequent sense of indebtedness to their mothers expressed by eminent men may be taken as largely due to the feeling that the inheritance of moral and temperamental qualities is an even more massive and important inheritance than definite intellectual aptitudes. Such inheritance coming to intellectual men from their mothers may often be observed where no definite intellectual aptitudes have been transmitted.

The above deductions are significant in this connection as emphasizing the importance of the rôle carried out by the female element in reproduction—a rôle too often considered as of secondary influence and potency in studying the problems of heredity. What lends greater weight to the above considerations is the fact also that family names perpetuated only through the male line of descent soon tend to become extinct. Many writers have regarded this tendency to extinction as an evidence of stock decadence—deterioration. But this is a mistaken view. The mathematicians have shown that the disappearance of family names, conserved only through male descent, is a natural and inevitable law. In the process of time this name extinction finally takes place while the blood of the original stock, through collateral descent, may have greatly increased. As showing how rapidly this collateral extension takes place, we may take a near example—the famous Vanderbilt family, whose immediate progenitor died no longer ago than 1877. The living representatives of the female descendants of the old "Commodore" now bear some 21 different family names. Many other families show the same rate of increase which illustrates how rapidly a prolific stock becomes diffused, and, if proper selection be re-

garded, how large a quantum of society may soon be influenced by the admixture of new blood.

President David Starr Jordan argues on much the same line in advocating that whatever of supremacy the Anglo-Saxon race enjoys is due to the English law of primogeniture, since, by its operation, the majority of descendants of the usually well-bred families of the nobility, instead of remaining nobles as in France and other European nations, are forced out into the common stream of society each to battle out an independent career.

The gain of primogeniture, President Jordan says, came in the fact that the younger sons and the daughters' sons were forced constantly back into the mass of the people. Among the people at large this stronger blood became the dominant strain. The Englishmen of to-day are the sons of the old nobility, and in the stress of natural selection they have crowded out the children of the swineherd and the slave. The evil of primogeniture has furnished its own antidote. It has begotten democracy. The younger sons in Cromwell's ranks asked on their battleflags why the eldest should receive all and they nothing. Richard Rumbold, whom they slew in the Bloody Assizes, "could never believe that Providence had sent into the world a few men already booted and spurred, with countless millions already saddled and bridled for these few to ride." Thus these younger sons became the Roundhead, the Puritan, the Pilgrim. They swelled Cromwell's army, they knelt at Marston Moor, they manned the Mayflower, and in each generation they have fought for liberty in England and in the United States. Studies in genealogy show that all this is literally true. All the old families in New England and Virginia trace their lines back to nobility and thence to royalty. Almost every Anglo-American has, if he knew it, noble and royal blood in his veins. The Massachusetts farmer, whose fathers came from Plymouth in Devon, has as much of the blood of the Plantagenets, of William and of Alfred, as flows in any royal veins in Europe. But his ancestral line passes through the working and fighting younger son, not through him who was first born to the purple.

The dreams of a certain class of philanthropists who imagine that the whole body of humanity may ultimately be lifted up in the scale of effectiveness by the adoption of their particular schemes of benevolence may be impossible of realization. By feeding, housing, educating, and otherwise coddling the defectives, they hope to overcome the existing misery and depravity that permeates society. Nature's method of sustaining the gen-

eral average and thus protecting the mass, as every one knows, is to let the defectives, through the operation of natural law, become extinct. Their vices, passions, and infirmities soon destroy them. The offspring of the confirmed criminal, irrespective of education and environment, generally displays unusual aptitudes for vice. "Cats' children will catch mice." While the old Latin legend of the royal twins reared with the herdsman's children, yet revealing kingly qualities in childhood, sufficiently indicates the opposite tendency—a hereditary tendency so obvious as to have had recognition from the beginning. The problem before the real philanthropist would seem to be, not so much how best to dispose of the ready-made stock of defectives that afflict society, as how to prevent their continued multiplication. In parts of Europe they try to accomplish this by legislative enactments, forbidding marriage among certain classes, and their public hospitals are inadequate to provide for the throngs of illegitimates.

It is a matter of common observation that there is small use in undertaking the betterment of those who by natural endowment are not desirous of bettering themselves. Soon after the Brooklyn Bridge was built, the management, in order to favor the immense numbers of day laborers who crossed to their places of employment, issued tickets to be sold in small lots at a discount. Instead of being availed of by the poor, in whose interests the concession was made, it was found that these for the most part kept on paying the regular single fare, while the cheap tickets were used by the business and well-to-do classes—illustrating anew the futility of seeking to aid the naturally improvident. But permeating society on every hand there are numbers who do take thought for the morrow—numbers who, foreseeing the evil, would hide themselves instead of passing on with the simple to be punished, who would build for posterity more wisely if they but knew what and how and where to choose, and what likewise to guard against and avoid. If these could see with enlightened vision, especially if they were aided by the insight conferred by educated observation and experience founded on scientific knowledge, the too common goal of future affliction

and bereavement would gladly be avoided. If every marriage were viewed in its inception as the probable founding of a future family, if hereditary tendencies to disease and degeneracy were made common knowledge, especially if the effects on the individual and on posterity of those diseases which are nameless in the presence of ears polite were taught—as the effects of stimulants and narcotics are taught—to children and youth in connection with the known physiologic laws of inheritance and reproduction, the gain to posterity would be inestimable. Outside of the medical profession and here and there a chance student of biology, the physiology of reproduction is almost a *terra incognita*. Human selection goes on without guidance or instruction, quite legitimately it is thought, among youth too inexperienced to be entrusted with any kind of serious business. The very idea of selection being hampered with such considerations as pertain to reproduction, would be regarded in most social circles as fantastic and mirth-provoking if not positively offensive. But as the years wear on and life becomes a retrospect, the value of such knowledge too often becomes apparent. The Autocrat of the Breakfast Table refers to it most touchingly. In that pathetic picture of "Commencement day," at college, he likens the young group ascending the stage to a start for the Derby, life being the race and that day the start, and follows the race through for 50 years to the marble slab at the end. As one youth mounts the platform he exclaims: "What is that old gentleman crying about? and the old lady by him, and the three girls, all covering their eyes for? Oh, that is *their* colt that has just been trotted up on the stage. Do they really think those little thin legs can do anything in such a slashing sweepstakes as is coming off in these next 40 years? Oh, this terrible gift of second-sight that comes to some of us when we begin to look through the silvered rings of the *arcus senilis*!"

In these previsions of coming evil vouchsafed to many of us who are not seers, the evil creations of Homeric days no longer appear as the authors of failure, disappointment, and early decay. Another explanation, all-sufficient and rational, antedating even the Grecian myths, has come down to us—"The simple inherit folly, but the prudent are crowned with knowledge."

## REFRACTION.<sup>1</sup>

BY JAMES A. SPALDING, M.D., Portland, Me.

It has always seemed to me from the beginning of my medical practice that if physicians were to meet with some accident or to succumb for a while to some form of disease, and thus to be placed in the position of actual patients before they had had much opportunity to show their skill on others, they would learn some points of future value. They would learn: How patients lay immense stress on what the doctor says; how anxious every patient is to know "what is the matter with me;" how much patience is needed in prolonged illness; how the mind acts on bodily ills, in that when we feel sure from competent advice that we are on the road to recovery we recover faster from an indefinable mental stimulus.

For these, and allied reasons, not from a spirit of egotism about what my sight used to be, nor from a desire for notoriety, let me ask your attention to my adventures in search of a cure for defective refraction:

Up to 1872 I had most excellent sight in both of my eyes, but at that time I met with an accident to one of them, so that from that time onward I knew that I had one fairly good eye (not very useful but capable in emergencies) and one remarkably good eye. I know this to be so, because from 1870 to 1900 hardly a day passed on which I did not test the eyesight of some patient, so that knowing the test type to perfection I never failed in testing a patient to run over the letters myself and to assure myself that my sight was just the same as the day before. More than that, some years ago when the planet Jupiter was rather nearer the earth than usual I not only saw its moons on several starry nights, but got a friend with a telescope to verify the positions which with my eye I fixed for them. And, better still, when I failed to place a given satellite it was only because it was eclipsed by the planet.

To repeat, with my best eye I could, up to the age of 46, read

<sup>1</sup> Read before the American Academy of Medicine at St. Paul, June 3, 1901.



diamond type without lenses, decipher 20/xv for test type, tell time by distant clock-towers which no one else near by me could do, and had seen the satellites of Jupiter more than once in my life.

Ever since I practised as an ophthalmic surgeon it has been my rule to say to patients, "Never use your eyes more than half an hour for near work. After that rest your eyes, and look about the room for a few minutes. In that way you can use your eyes many hours a day." These rules I have preached, and I have practised, and although for many years I have read books innumerable in different languages, to say nothing of translating hundreds of medical papers, some of them from that detestable German cursive-schrift, I have from following the above rules never known weary eyes.

In the same way I have taught that the artificial light which we utilize for a greater part of our lives should be double. That is to say, have two sources of light in every working room; one on the table for the work, one to illuminate the room; a shade to the forehead where the light is close to the head is also desirable to prevent too much heat reaching the eyes and head. In the day time, work close to a window, but never let the sun fall directly on your work.

Now then, by refraining from prolonged work, by utilizing good light, my eyesight remained good in my best eye until *something* occurred to me. And if any patient had told it to me as I now tell it to you, as a text bearing in some way on the sociology of the physician, I believe that I should have been skeptical and unsympathetic because it sounds incredible.

One night in August last the United States fleet being in our harbor, I used an opera glass freely to examine the intricate electrical lamps hung about the ships, but on the next day my eye was as usual. Going to bed that next night, with sight as perfect as ever and sleeping a dreamless sleep, I awoke to find everything misty and indistinct. I could not tell the time by the clock near the head of my bed. It seemed as if it must be dawn, instead of my usual hour for arising. With my former presbyopic lenses, I could hardly see the watch. But that told me that the hour was the one expected, that the clock was right,

and that my sight had been dimmed unaccountably in the night. I was much alarmed because on good sight my operative ability depended, to say nothing of accuracy of diagnosis in using the ophthalmoscope. I went to the city as rapidly as possible, and put into exercise a long cherished plan of having my eyes tested by opticians, to see if an optician is as good as a medical specialist; if testing the eyesight as so widely advertised nowadays is of any use in relieving defective sight or helping the patient morally and mentally, in comparison with testing the eyesight *and* examining the interior of the eye by a competent ophthalmic surgeon.

One optician tested me with two fixed apparatus and several type, said that I had astigmatism with a given axis and that I needed a certain lens. When I asked him what was the matter with my eye so long perfect, just as I would ask a medical man, he had no reply. He did not know; he could not tell; that was not his business; I must see a doctor; he couldn't tell whether it was safe or not to use my eyes; he had no idea what my chances for the future were. A second optician went through with the same tests, was equally ignorant of the cause, or prognosis, and gave me a different lens from that given by the first.

These interviews satisfied me as a patient that an optician can only fit such lenses as the patient himself picks out, that he cannot know whether that glass is proper to wear and that he fails to grasp anything concerning the etiology or prognosis of diseased eyes. In other words, an optician's work is of no value, morally, medically, physiologically, or hygienically.

With these two formulas in my pocket, I consulted an ophthalmic surgeon, and was at once satisfied. For, the lens ordered, a compound lens covering the astigmatism, which the opticians had discovered, and hyperopia, which the opticians had overlooked because they could not use the ophthalmoscope, I got perfect sight in the affected eye. More than that I was satisfied in my desire to know what was the matter with me. In reply to my questions, Have I a cataract? or keratitis? or trouble in the iris or lens or in the inner coats of the eye?, I received assurance that there was nothing abnormal except a

slight effusion into the choroid, but not in the center of vision, that I had nothing to fear, that I should wear permanent lenses, and that I should be careful of my eyes for near work. Perhaps some of you can imagine my happiness on coming into the street once more with such a weight as threatened blindness taken from my mind. Now, *I knew what was the matter with me*, now I could feel as I never had before, the moral effect of what I had so often and as I fear rather thoughtlessly told my patients; now for the first time in my life I better recognized a physician's responsibility towards those who consult him.

It would not be fair to the high estimate which I have of our profession were I to fail to mention that although I had undoubted faith in my first medical man I happened not long ago to mention to a second confrère that I had lately put on glasses for the first time, whereupon he expressed a desire to look at me. He then without any suggestion from me gave me a prescription for lenses exactly identical with that given by my first adviser, and, moreover, very oddly mentioned that he had no doubt I had suffered from a choroidal effusion.

The final history of my best eye is that after awhile with my glasses I moved about with more confidence in the future, gradually increased abandoned literary and medical studies, abstained from much use of my sight by artificial light, and used my eyes but little at a time. The refraction which from emmetropic had changed in a single night to one diopter of hyperopia with one of astigmatism axis  $90^\circ$  gradually changed to its present amount of half a diopter of hyperopia with a half of astigmatism axis  $70^\circ$ , which proves the presence of an effusion pushing forward the retina irregularly, and then diminishing in amount. One curious incident should not be forgotten, namely, that my refraction changing suddenly in August, and glasses being fitted in September, along in November the refraction changed again, and as the glasses were not changed a cystic tumor formed in the upper lid of the best eye and was finally opened. Bearing in mind how often blepharitis ensues upon astigmatic refraction, it seems probable that the cyst was due to an uncorrected change in the refraction of the eye. My vision to-day with proper lenses is perfect.

The lessons taught me by this rare condition, so rare that in my note-books I hardly find its parallel, were the following :

If, before my own experience, a similar case had been brought to me I should not probably have put much faith in it, because such phenomenal loss of sight in a few hours seems incredible unless from hemorrhage or accident. Not finding such an etiology, I should have suggested that it had been coming on gradually. Sympathy I should probably have shown as one does to all afflicted patients at first, but not the tenth part that I have since shown to all. Experience has made me more patient to listen, more sympathetic in encouraging a recovery even in a serious condition, for, before accurate fitting of lenses, I could not help feeling that blindness was imminent. I became a better listener to all sorts of stories, when before in paying attention to long-winded histories of symptoms I had often recalled the story of a doctor now deceased. Once on a time I asked him how he got along with patients who were tedious talkers, and he said: "I take a fan, cover my face, tell them to give me their history. Then I go to sleep. When they stop talking, the loss of sound wakes me and I say, yes, yes, excellent. Anything more?"

Another striking thought was how as a mere human being I had so long slighted the longing of people to know what was the matter with them. Helpless then, myself, so far as diagnosing my condition I longed, as I had never dreamed that my patients could long, to know what was the matter with me, to know what had happened so that the outer world was no longer beautiful to look upon but distorted, zigzag, covered with thick black lines, hazy, shadowy, and my own friends unrecognizable at ten feet away.

So then from the moment that my sight was recovered my sympathies were extended, my attention was accessible to any possible tale. I ceased to hurry patients, to make an off-hand diagnosis, even when the case was plain.

Bearing in mind the innumerable papers lately published on the controversy between the merits of ophthalmic surgeons and opticians I determined to make a personal investigation with result as stated. I consulted two opticians just as people now flock to such men "to test their eyesight," to be "examined

free of charge," but I got no satisfaction because I got no proper lens, because they both confessed that they had no means of knowing what had happened, while that was the very thing I needed. Because, how could I pass the rest of my life with imperfect sight, how could I afford to study any more, how could I maintain my means of living if in doing my best with imperfect sight I were likely to make it still worse? These men did not examine my eyes at all, because they had no means with which to do so, and even if they had, as is their latest sham, they could not tell abnormal from normal condition of the eyes.

The moment, however, that my medical friends used the ophthalmoscope, I felt beyond the line of guess work and nearer certainty regarding my future. When, too, each one assured me that there was no disease, I was morally and mentally strengthened, because I knew that with reasonable care my future was safe. When additionally each separately prescribed the same lenses I felt near perfection. I now had knowledge, in my mind, instead of guess work. As a patient I had submitted to examination as others had submitted themselves to me and a weight had left my mind.

Furthermore, during my troubles I could not help thinking of the present status of the oculist and the optician. The encroachment of the optician on professional work of the oculist threatens the income of many of us. The oculist's office is free of patients, the optician's chambers full. The general surgeon of to-day has one chief competitor, the institutions, the medical practitioner has that, and Christian science and allied swindling, but the oculist has all of these and the optician too. A medical man to fit glasses to diseased eyes has to study four years, to pass an examination, and then to be examined again for registration, all of which represents money and time, but the optician is permitted without a license of any sort, without study or examination to do precisely the same thing. The optical trade is a Trust for selling optical goods and this Trust utilizes the discoveries made by medical men and advertises them as its own. The medical man cannot advertise without being ostracized. People patronize the optician, who cannot know about the eye, in preference to the medical man who knows all that can be

known about the eye, simply to save a fee. But people will not see that they pay the opticians a fee when they pay more than the glasses are worth. People are to some extent justified in trying to save a fee because so many medical men are and have been exorbitant in their charges. From our standpoint, nothing is too much to pay for a cure, but do we always cure, do we always bring health? Would it not be better to lower our fee for fitting lenses to persons of moderate means, especially when we know that we can do so without giving our services gratuitously? And all the more, since people apparently of intelligence, otherwise have an idea that an eye surgeon treats sore eyes and nothing else, forgetting that ninety-nine cases out of a hundred of that sort of eyes get free treatment at the hospitals.

Another thing to consider is the bargain-hunting mania in the human mind. May not the neglect of the oculist be due to this mania? Most people bargain about medicine in many ways. They bargain about their eyes at the opticians, they bargain about their health, their stomachs, their lungs and kidneys with the druggist over his counter, or at the patent medicine counter in the department store. Without making a story too long, people have got to bargain somewhere, and they follow the medical advertisements and the opticians' advertisements in the newspapers. Why, for a year or more past in our city a corner in the daily paper has been occupied by an optician with his daily talks about blepharitis, cataracts, vitreous opacities, detachment of the retina, headaches, indigestion, insomnia, and hundreds of other diseases, all belonging to the medical profession to treat, but which from this man's point of view are all the trade of the optical specialist, while the doctor pays his attention to sore eyes alone.

The other day a man talked to me in this fashion: "Oh, you doctors, how silly you are! You know more than these opticians. They only guess; you let them take your work right out of your hands, and then go about complaining that there are too many doctors. Why, there are too many everybodies in every trade, but only those succeed who sell their brain-work and their goods at a good price to the public by letting the public know what they have on hand. You have got to make it plain that you sell the same goods as the opticians, plus brains. It

puzzles me," he continued, "how you can do it unless you advertise. Health touches everybody. Everybody sooner or later has got to come into contact with the doctor, so why should you not tell the people where to get what they want?" Is there anything in this man's talk?

Well, as we cannot advertise just now, though the time for that is coming as it has come in that older civilized part of the world (Europe) as you can see as you walk along the streets and read Dr. this and Dr. that, eye doctor, nose and throat, midwife, etc., then our only help lies in trying to induce our professional brethren to send us their cases, in urging every medical man to say that a good eye doctor ought to fit glasses better than an optician because he has studied longer, and, above all, because if he is any sort of a specialist he can tell what is the matter, and the optician cannot. But when I see the disunion in our profession there seems to me but little hope of such a remedy. Personally, I should never think of telling a friend to buy a patent medicine in preference to consulting a physician. But many medical men are all the time opposing their own medical friends, their own clients, their own interests, in advising their patients to consult men who are opticians but who have never had even registration as the druggists about us have. We must feel hopeless, when we think of a malpractice case in which Dr. A was sued by B at the advice of Dr. C, on the ground of bad treatment, and to save himself, as he claimed, in case Dr. A should say the trouble occurred when he, Dr. C, was in care of the case. That poor man, Dr. A, lost his case owing to the testimony of medical men against him; the law courts went against him too; he paid from his savings for twenty years. But to this day that man B walks about the streets with a perfect body. What a satire on courts and justice! Can any of us look for union in such a profession as medicine where personal jealousy is so marked?

Some will object and ask why druggists and opticians and Christian science people and other innumerable sets of empirics should not gain a living as well as doctors? Why should doctors be a chosen class, a class legalized while others just as good are ostracized? To this we reply that in all places where medical

men offer skill to the public they should be encouraged by the law, but that where there are no educated medical men then the people should take what best they can find at hand. From my standpoint, as an ophthalmic surgeon, and recalling my difficulties in getting a cure for my threatened sight, I can only offer suggestions concerning my chief competitors; let others attacked with other sorts of competition look out for themselves and suggest their remedies. I say, let every medical man recommend in every given town his medical confrères who are skilled in their specialty; if there are none except at a distance, then let the next best man do what he can, and finally reserve the cases for consultation with a distant confrère, stating the means at the patients' command and asking reduction from every point of expense in suitable instances.

To the argument that physicians should not grasp at everything, and that the optician has an equal right to make a living, I reply that the optician should limit his work to the making of lenses. If he did so then the medical man could have his share of the work, and the optician his. But persistence in the present line of competition with medical men simply drives the latter into the optician's business; in other words the physician will make his own lenses.

Is there any remedy then for all sorts of competition between the medical profession and all forms of non-medical treatment of to-day? I mean not only the optician form of competition, but counter-prescribing, Christian science, all sorts of advertised self cures, all patent medicines and so on to the end of the list? Will lectures before the innumerable women's clubs be of any use? Will it be worth while to come before the public in the daily papers with health lectures? Will it not be best to use professional cards with the given specialties printed thereupon? We have long sneered at the dentist with his sign as "Dentist," but has the dental specialist fallen in repute in the past twenty years by that, or any other form of advertising? People no longer sneer at tooth doctors; why should they sneer at eye doctors if they call themselves so? I cannot help feeling that the competition of all sorts of charlatanism with the medical profession must be met with the same weapons with which they are now annihi-



lating us. What sort of advertisements shall be allowed us will have to be decided at the medical congresses. Whether medical supervision of schools, whether teaching to the children that to the medical man alone belongs the care of every part of the human body and that he alone can tell what is best for the head, and the stomach, and the eye, and every other part of the body, will in time educate a new generation of common sense people, remains to be seen. From this latter point of view, alone, do I see the strongest hope of keeping all sorts of charlatanism at its lowest ebb, but we must never forget that there is no sounding to the lowest depths of human folly.

#### DISCUSSION.

Dr. L. B. Tuckerman, of Cleveland :

An experience with illness I think, as the Doctor says, teaches us to listen and deal more carefully and sympathetically with those things we have hitherto deemed of little importance. After years of perfect health I had a severe illness, and coming out from three weeks of partial delirium, I appreciated as never before the magnitude in the patient's eye of little things which ordinarily we never think of, and the seriousness of the mental depression following a profound illness. I was certain that there were at least 17 fatal diseases afflicting me. The conviction was positive and the assurance of my medical friends in whom I had great confidence hardly succeeded in persuading me that I would get well. We need to put ourselves in our patients' places.

The point regarding the work of the oculist is very important. I have now in the hospital, at the point of death, a patient whom an optician fitted with glasses, expecting her to see when she had a choked disk resulting from brain tumor. I think the mistake occurred from the attending physician not using the ophthalmoscope. The headache was thought to be due to the eyes and in this way two months of precious time were lost. It seems to me the duty of the Academy to urge that every practitioner shall accustom himself to use every instrument of precision in the matter of diagnosis. I never send a patient to an ophthalmologist unless I have determined at least a probable error of refraction and until I have examined the fundus with the ophthalmoscope. I think the profession is at fault in leaving the ophthalmoscope, and the laryngoscope, and the proctoscope to the specialists in these lines. It is the business of the practitioner to make an approximate diagnosis first and know why he sends the patient to the specialist for treatment.

Dr. Leartus Connor, of Detroit:

This is, I think, one of the most discouraging features of the medical pro-

fession—the fact that an individual attempts to treat a case of which he knows nothing. Further than that, the patient is dissatisfied and is sent to somebody else who knows nothing, when he knows there is somebody who knows what should be done. Things of this sort bring us into disrepute with those about us. Another thing closely allied to this is the casting of a slur upon some whom we know are competent to take care of this sort of a case. The correction of the evil lies in the training of the young that it is a misdemeanor to attempt to treat a case which they know nothing about, or to cast a slur upon those who are competent. Could such training be given, I think we would have a generation in which not so much of this thing would be done.

Dr. S. D. Risley, of Philadelphia :

I can but feel that my colleagues in the Academy who are also ophthalmologists have resisted the temptation to relate personal experiences which would further emphasize the remarks of Dr. Tuckerman and Dr. Connor. Every ophthalmologist of experience could, I am sure, stand here for an hour and relate examples which would illustrate vividly and fully justify the deep feeling conveyed in the tone of voice and the earnest remarks of these Fellows of the Academy,—cases of dire neglect, where the days during which proper medical treatment would have proved availing have been wasted under the care of the so-called oculist-optician. The most surprising, not to say the most sorrowful aspect of the subject is that many of these victims of neglect have been referred to these men by the family doctor. In two instances I have known of a check, representing a dividend of the spoils, sent to the doctor who had quite innocently referred his patient to one of these shops. In other instances where it was found impossible to select a pair of glasses without using a mydriatic the patient was sent back to the doctor, who then prescribed atropia, since it was illegal for the optician to do so in Pennsylvania. In one such case coming under my own care the trouble proved to be a double optic atrophy ; in another a serious chorioiditis, while in a third the affection for which relief was sought was a subacute inflammatory glaucoma. Such instances as these are ulcers on the tissue of our medical ethics which lower the standard of the profession in the estimation of the community. I am glad the subject has been introduced and wish the discussion were more extended and that it might have wide publicity.

Dr. Tuckerman :

There is now in St. Alexis Hospital a case of glaucoma, a woman past fifty years who had been treated by a doctor for some four months and he never had even made an examination for tension of the eyeball during that time.

## NECESSITY FOR REVISING MEDICAL FEES.<sup>1</sup>

BY P. MAXWELL FOSHAY, M.D., Cleveland, O.

From somewhere out of the dark ages of medicine has descended to us the foolish custom of caring for certain classes of human ailments at a fixed charge for each visit to the sick bed. A more illogical method of securing remuneration for skilled services has never been devised. It is true that the plumber or other skilled workman is paid a fixed price per hour for his work, but the careful householder when in need of the plumber's services makes a contract for the entire work at a stipulated sum. The lawyer gives his counsel and court services, and renders a bill in proportion to the importance of the case and the financial equipment of his client, having no regard for the number of times his client may have called upon him.

The surgeon and the specialist have long since evolved rational methods of making fees, and even the general practitioner, when taking care of emergency surgical cases, seems to have always charged something for his skill in setting a broken bone, without relation to the number of times he has seen the case. All the old fee bills bear evidence of this practice.

It has for a long time been recognized that medical services (so called) are not as a rule adequately remunerated. Is not this wholly due to our own illogical method of making bills? Why should a general practitioner take care of a case of severe typhoid in a well-to-do family for \$2 or \$3 or \$5 per visit? What inherent reason is there for his not charging \$200 or \$300, or whatever the circumstances of the family and the value of the life warrant? Why is a life endangered by diphtheria or pneumonia worth less than the same life endangered by appendicitis or pyosalpinx?

There is every reason in the world for the general practitioner to proportion his charge in all cases to the value of the service rendered, and to the ability to pay of his patient. By this

<sup>1</sup> Read before the American Academy of Medicine at St. Paul, June 3, 1901.

means the average of medical fees may be raised, while at the same time they are made more equitable. It will be still just as easy as now to scale down our fees to meet the necessities of any case. On the other hand it will be much easier to secure proper payment for valuable services when the ability to pay is equal to it. In fine, this method would be more just to all parties concerned, and no one would lose by the change except those perfectly able to do so.

We need a new fee bill. Not that a fee bill is a fetish that will unfailingly bring us full pocketbooks, but simply to establish a standard agreed upon by physicians in their societies to which we all can appeal when dealing with our patients. A fee bill also is of very definite service in court when suing to recover the amount of a bill. As soon as the new method of charging for purely medical services is incorporated in a fee bill adopted by local medical societies, the courts will recognize it as of some value in determining the justness of a given charge, just as they often have in the past made use of the old fee bills.

But the greater object to be attained by this new method, and the one which has inspired this suggestion, is that it furnishes to some extent at least a means of checking the growth of the pernicious custom of giving commissions—a practice that bids fair ere long, if persisted in, to blight beyond a generation's recall the rising tide of decency and education and honor in medicine. No present retrogressive tendency in the evolution of the medical profession is at present so strong as this of the physician dividing fees behind the patient's back. It saps morality to its foundations, and it is a growing evil. Any means to wipe out the slight justification for its existence among us should be welcomed. For it cannot well be denied that the general practitioner has a real grievance when he makes three or four visits to a patient at \$2 per visit, and then assumes the responsibility of calling in a surgeon who receives \$500 for his services. It is right that he should be compensated, and our new fee bill can readily provide for a definite charge by the general practitioner for his responsibility in recommending operative interference. The public in a few years will learn to pay it without overmuch grumbling.

With this provided for, the surgeon will have no justification in offering part of his fee to the general practitioner, but in case he continues the practice all will know it is purely as a bribe to get cases that would not come to him on his merits. On the other hand the general practitioner will have absolutely no excuse for asking a commission from the surgeon and the latter will have the best of reasons for a refusal. Having accomplished this much it will then be "up to" the surgeons to say whether by continuing the commission evil they will deliberately disgrace their profession, reduce their incomes, and render probable the extinguishment of their specialty.

A new method of charging for purely medical services, then, will work many benefits for our profession, but in addition it is now imperatively demanded as the only adequate means of putting an end to the most degrading custom that has threatened to engulf the honor of medicine.

## THE FIRST-YEAR MEDICAL CURRICULUM.<sup>1</sup>

BY THOMAS D. DAVIS, M.D., Pittsburg, Pa.

A revolution is occurring in medical education. There have also been great changes in the curriculum of the academic departments of all our institutions of learning. Note, I say, changes, not advances, for I am far from agreeing that many of the changes have been an improvement in education. It seems as if the courses in arts and sciences have only been arranged to give a short cut into the professions and not to broaden and deepen the foundations of true mental development. Indeed, out of the sixty or seventy elective courses offered in our great universities, it is possible to choose so as to have an exceedingly indifferent education. It is my positive conviction, the result of my careful observation, that no plan, yet adopted, or suggested, surpasses for true professional educational foundation, that of the old, severe classical course, and especially in developing the judgment and reason and forming the habits of application and mental concentration. The utilitarian idea has been advanced so urgently and persistently that anything that cannot show its advantages in dollars and cents has been placed in the background.

The idea that a boy should not choose a profession until he has secured his college education is now obsolete, notwithstanding that such practice has produced the broadest and most substantial men in all professions.

There can be no doubt that a student thoroughly trained in a severe collegiate course can acquire medical knowledge more easily and rapidly than one who has never had this advantage, and it is equally true that such a student in after years will develop into a broader, safer and more learned practitioner—I do not say a more successful doctor, because success is too frequently estimated pecuniarily, or by mere popularity. I recently asked a medical student what was the name of the first cervical vertebrae, and he promptly replied, "The atlas." I asked him "Why it was so named," but he had not the slightest idea.

<sup>1</sup> Read before the American Academy of Medicine, St. Paul, June 1, 1901.

Parrot-like he had learned the name, but it conveyed to him no hint of the great field of mythology hidden beyond. Of course, the mere utilitarian would say, he did not need to know this, but the same logic would say, he did not need to know the name at all, the number would do as well.

Considering the myriads of such names and terms in medicine, it is not necessary in this audience to point out the advantages a classical student would have in this particular, at least, over those whose preliminary education stopped at the public school, and yet some would have our medical colleges put them all on the same level! But many who admit that classical study is a necessity to medical men, claim that two years is sufficient and that the last two years of a college course is a mere waste of time as far as medical education is concerned.

It is just here that I wish to make an emphatic protest and to assert that the subjects taught during these years are of indispensable importance to a truly accomplished physician, especially as the medical colleges at present do not supply their admission.

So thoroughly am I convinced of the value of these topics, that I think the first-year course of a medical school should approach the last-year course in a college, so that medical students would be compelled to pursue these very necessary studies. I hold, and the object of this paper is to insist, that a knowledge of several of these subjects should be required of every medical graduate, whether it be acquired in a college or in a medical school.

In some of our colleges and universities there is a movement to introduce into the Senior year some of the first-year studies of medical schools, but I know of no medical school that is introducing the last-year studies of a college in their curriculum. Indeed, in my judgment, so far, the effort has been to advance medical education at the wrong end of the course.

In the Senior year at Washington and Jefferson College—a type of our better small colleges—they study biology, histology, embryology and osteology with laboratory work, having experimental and laboratory chemistry in their Junior year. In Yale, Harvard, Princeton, and the great state universities, the same studies are regularly and thoroughly taught. On the other hand, there is no medical school that teaches rhetoric,

botany, logic, and psychology, and yet I maintain that the first two would be of great advantage and the last two of absolute necessity to a thorough medical education.

A four years' medical course in itself is not necessarily an advancement in medical education. Spreading butter very thin on one's bread, may make it last longer, but does not increase the amount of butter! Simply extending the same old studies over four years does not increase the amount of medical knowledge taught. Four years of six months each may not be nearly so good as three years of ten months. I know laboratory work and increased clinical advantages have been introduced, but in many schools the absurd lecture system remains. Possibly more particulars are dwelt upon, but general principles are no more thoroughly taught. In the lengthened term required, certainly a more thorough course should be offered, instead of spending the time in more or less indifferent minutiae. An entire rearrangement of the curriculum, in our medical schools, is necessary to correspond to the four years required. Also as they have the increased time, so improved and more accurate methods of instruction and examinations should be adopted. In the first year additional studies could be introduced.

Rhetoric could be taught with advantage. For while all are not called on to write, yet all are expected to appreciate good writings. Undoubtedly many valuable facts are lost to the profession, because the observer feels his inability to describe them intelligently, and many observations fail to impress their importance on account of the language used in reporting them. Doing away with the old time "thesis" was no advancement.

Botany should be taught to give a more correct foundation for the vegetable *materia medica*. To the country practitioner a general knowledge of botany would be the source of much pleasure, as well as enabling him, possibly, to discover medicinal plants that might be of great value. As he rode along among trees and flowers a new world would be open to him and the humdrum and care of a grinding practice be brightened and lightened. I know of no more fascinating subject, or one that gives larger returns for the time occupied. To know plants and flowers as one knows his friends and to receive their kindly



greetings as he passes ; to be saluted by their heads nodding in the breezes ; to recognize quickly the stranger among them and to know from whence he came, or to discover that so far he is nameless, is a pleasure not to be estimated in money. To know the good and the bad, the useful and the poisonous, the pure and the hybrid, the self-sustaining and the parasite, the annual and the perennial, the male and the female, all is fraught with intense interest. But more minutely, in the study of biology and histology, especially the physiology of circulation, propagation and respiration, where can the marvelous secrets of life be approached more nearly, or more readily, than in the great field of plant life. The wonderful vegetable kingdom, so nearly allied to the animal that it is impossible to tell where one begins and the other ends, what a perfect foundation for the study of man.

As already suggested, these studies might be of inestimable value, but still classed as refinements, not so, however, with logic. How many have facts in abundance, but have not knowledge or expertness enough to put these facts into logical order and hence have great difficulty in arriving at a correct conclusion? It is my observation that just here is where so many fall short. They observe well, they remember well, but they mistake sequences for consequences. They argue from no premises, with no system and therefore their conclusion is no better than a guess. They try to make case fit to case and apply others' opinions rather than think out their own. They do not say, "This is my judgment," but rather, "Professor this or Dr. that says so and so." Their application of general principles to individual cases is faulty and later they depend too much on their own and others' experiences. Clear, keen cut, logical methods are unknown to them and in many cases they are little better than a book of prescriptions! True many who have never studied logic, use logical methods—but their well-ordered minds have absorbed logical principles from others without possibly recognizing them. I feel sure in no way could the practice of medicine be improved more rapidly and thoroughly than by training men to think, judge, and decide logically. A man who has been well drilled in logic has a great advantage over one who is ig-

norant of its principles. In no profession is a well-balanced logical mind of more importance than in medicine, and in no profession is logic of more practical use than in deciding the all-important questions which daily confront a physician. I therefore assert, if not taught before, logic should be taught in our medical schools.

But even if the three studies mentioned should be passed by there still remains the most important of all—psychology, or mental philosophy. It seems passing strange that all these years this subject has been so markedly neglected by our medical instructors. The intimate mysterious relation of the mind to the body has been recognized, but the laws governing the mind and the many phenomena that have been observed and classified are, to a great extent, unknown to medical men. In all colleges psychology has been taught and more recently they have added experimental psychology, with laboratory instruction, that closely allies it to physiology, but the medical schools ignore it entirely. The marked influence of the mind and the emotions over the body is so powerful that it has been the bonanza of quacks of all times. The king's touch, Perkins' tractors, relics and shrines, homeopathy, Dowieism and the colossal fake, Christian science, so-called—all owe their existence and influence entirely to this mental power. Notwithstanding impostors have accomplished some astonishing results, the regular profession has sacredly avoided it as if it were as false as the villains, or fools, who have so frequently used it to gull the ignorant public.

It is high time that the rank and file of the medical profession was instructed, at least, in the fundamental principles of the great science of mental phenomena, and the study of physiology be blended as closely with the study of psychology as matter is to mind. Medical men study the organs of the senses and yet neglect to study the perceptions, they study the anatomy of the brain into its finest divisions and yet fail to study its wonderful workings even in their grosser aspects. The physician who fails to recognize and use mental influence loses a mighty power, yet our medical schools teach none of the laws of this influence. Psychology and physiology have been too long divorced. The

thoroughly equipped physician must acquire more of the knowledge of the metaphysician.

As already stated, our colleges are teaching these studies, and if our medical schools do not require them, for entrance, surely they ought to teach them, at least, in their practical phases.

A medical college which will offer a course for the first nine months, embracing rhetoric, botany, logic and psychology, biology, osteology and general chemistry, will at the end of its four years' course of nine months each turn out far better equipped medical men than are to be found at graduation now.

If our medical schools would adopt some such first-year course, then the graduates of our colleges, in arts and sciences, would not be put on a level with those who barely know the rudiments of the English language. As it is now, I feel sure that a college graduate, with three years in a medical school, will be better posted in medicine and better prepared to practice it than a common school graduate can possibly be after four years in the same medical school.

#### DISCUSSION.

Dr. Leartus Connor, of Detroit :

I think it is impossible to state a general proposition that will cover what is best for the training of all boys in the first year of the medical course, or the last year in a college course. I have long been of the conviction that there was less differentiation in the courses put before individual students than was conducive to getting the best out of them. Masses of individuals trained in the same way would give less satisfactory results than if trained in groups.

All colleges are committing a grievous wrong to their students in not teaching them how to write clearly and forcibly, or how to speak in a manner which shall convey that which they would impart. One of the most successful of our colleagues in New York says : " Above all things, have the students taught to write clearly and well and how to talk upon his feet so that people shall understand them ; otherwise they will be handicapped in the race of life." Among medical men those who occupy prominent positions are those who do these two things. If this instruction is not received before the student comes to the medical school, the course should be inserted there. The boy brought up in the average way would do better if in the first year of his medical curriculum he were taught to use his hands deftly. Too many have not learned to use their fingers, in following out their thoughts and perceptions. Then a little business training would make the physician far more prosperous, and more rep-

utable in the minds of those who do business. The thing to be insisted upon is to make the training of the young man such that when he becomes a physician, a member in the community, he can make himself felt clearly, directly, and well in all directions. This he cannot do unless he is taught to use his motor faculties. To my knowledge, any number of doctors are wrecked because they lack such training. How this training shall be brought about I do not know, but I do know it will not be by placing Latin, Greek, and philosophy (much as I love them), in the first year of the medical curriculum.

Victor V. C. Vaughan, M.D., of Ann Arbor :

There are some things absolutely necessary for a student to be taught to insure a successful career. He must know the English language. This instruction should not cease when he comes into the medical school. We make a mistake in not having our students more frequently write theses on certain subjects; a backward step was the abolition of the requirement to write them. There are hundreds of students who know nothing about the literature of medicine and are wholly incompetent to look up a subject. This should be changed and each student should be required to write not only one thesis, but a thesis every year. Every professional man must know something of the history of his own country and the history of the world in general. A man before he can study medicine must know mathematics through trigonometry, some biology, botany, zoology, and chemistry. I am confident that the man who is going to get any real good out of medicine to-day must know the modern languages; he must have a reading knowledge of French and German. So long as there is more research work in one German university than in all the universities in the United States, English will not be the language of medicine. So long as we have such an institute as Pasteur's in France and the Institute of Experimental Medicine in St. Petersburg, we cannot expect the English language to take precedence in medical knowledge. If the student has not these qualifications when he comes to the medical school he should be compelled to go and get them before he studies medicine. As to Latin and Greek, he should have some knowledge of both. The fact that a man has an "A.B." may mean much or almost nothing. All the great universities have adopted the elective system; you can go through them and choose what you please. I am not arguing whether this is good or bad. Experience seems to justify the value of the system. I believe that the majority of students wisely select their studies, but that is due to their own good judgment. I think the only proper rule for a medical school in this country is to recognize no degree, but say to the medical students that they must have the things that are absolutely necessary for the study of medicine. They should get them after entering the medical school, or be sent back to the literary college. It is time that those interested in medical instruction in this country should force the literary schools to give courses that properly lead to medicine. The Acad-

emy of Medicine is in a position to do this. It is true that many of the literary colleges are giving pre-medical courses, and this is being overdone. The student while he gets chemistry and anatomy, does not get it with the medical belongings. He does not get the medical spirit along with it. I am in sympathy with the law enacted by the New York Legislature, last session, compelling every student to stay four years in a medical school no matter what degree he may have.

Dr. Albert Goldspohn, of Chicago :

The sentiment just expressed by the last speaker arouses the same thought with me, particularly with regard to the relative value of modern and the old languages. I very heartily endorse what he has said in regard to the value of French and German. I will not pretend to judge England and all that it represents in science, but I can say that we have gotten more original productions, more real contributions in pathology and surgery from Italy, Switzerland, and the smaller European countries than we have received from England in the last five or ten years. There is no possibility of a man being abreast with what the world affords, unless he is familiar with German and French; and, through the abstract publications in these languages, he is helped to the substance of what appears in the Italian, Scandinavian, and Russian languages, whether he has ever studied Latin or Greek, is a mere bagatelle in comparison with what he can acquire from these two sources, if he have the proper push and spirit to find that which the foreign professions produce.

I think a deficiency in our medical curriculum is an insufficient appreciation of the power of mind over matter; a proper understanding of the psychologic part of man—the perceptions, the reason, the emotions, and the will,—the principal divisions in psychology and their relations upon each other. I cannot think that the American student is so wanting in technical execution or manual training and skill. He is respected for that by all foreigners. This is not so in general fundamental scientific knowledge. The amount of instruction which our medical students get in histology, for instance, has been grossly defective. In my own experience, I had to brush up abroad on this which I could not get in this country twelve years ago; and I had to work inordinately, in order to use the microscope effectively at the same time in pathology.

Defective knowledge in logic and reasoning is also marked in our schools. Men too often jump at conclusions. I think a good thorough college course and then a four years' medical course the most likely to do the greatest good.

Dr. Edward Jackson, of Denver :

With reference to the study of logic and psychology it occurs to me that as the study is carried on in the college course it furnishes a very poor outfit or a very insufficient guarantee of a logical mind or an ability to apply psychologic principles to general facts. For instance, the base-

ball or billiard player learns to do certain things with perfect promptness and ease, and yet he knows nothing perhaps of the names, or forms, classification, or arrangement of the muscles by which he does them, and still less of the nerve paths by which he accomplishes his purposes. Something of the kind is true of logic and of any practical application to psychology. A man learns to think logically by trying to think logically, by seeing his mistake, or having the mistake pointed out in the result of his thinking, and going over the subject again. It is by doing the thing and not by objectively studying it that he becomes a master in logic. So I do not think we are sure by introducing these studies in the curriculum, instead of merely pointing out any departure from logic of the ordinary working of the mind, to gain much in making a physician logical.

There is another aspect of the subject, however. As physicians we have to deal objectively with the logical processes of others. We should see the advantage of studying logic and psychology from that point of view. The medical student should be taught something of the methods of dealing with the psychologic processes of the patient. There are many sayings about treating the patient, and not the disease; but there is practically nothing in our medical college courses that especially fits the student for doing that. I think from that point of view the introduction of logic and psychology is very important.

The selection of a course of medical study is a very difficult one, and to have it properly studied is even more difficult. This is illustrated by what Dr. Vaughan said about mathematics. I entirely agree with what he said about mathematics regarding the average man's medical success and practice. But in ophthalmology, a particular branch of medicine, the thing that limits the possibilities for usefulness and honor, of nine out of ten practising ophthalmologists, is an insufficient acquaintance with mathematics. I cannot think it would be possible to require for the average medical student enough mathematics to properly fit a man for the practice of ophthalmology. Here it is not the superiority but the absolute necessity of an elective system which is illustrated.

There is also the value of differentiating early. It is commonly spoken against, but the best results can be gained in no other way. It need not mean a narrowing of training, but the shaping of training in a certain direction. It means that certain "centers of organization" should early appear in the mind, and that the whole knowledge of the individual shall be placed in relation with those centers. The idea that a certain amount of knowledge should be accumulated, and that afterwards it can be applied in any direction that is thought best, is fallacious. Knowledge never can be properly acquired until placed in some relation with an ultimate object. This supports what was said about the necessity of the medical atmosphere in connection with certain studies; that the student must have the time in the medical school, and there acquire his knowledge

steeped in medical associations. It seems to me quite possible with a course well recognized as leading to the study of medicine, and given the place it should hold in the general college curriculum, the objection to pursuing those studies outside of the average medical school would be largely removed; that they could be quite as well studied there as in any medical school that devotes its first two years almost entirely to laboratory work, and does not encourage students to go into clinics.

There is another point, with reference to training the physician primarily as an original investigator. I never have seen a gross error of diagnosis which did not rest upon the inability of the man who made it properly to interrogate nature. I think that here is the commonest limitation of the powers of the average member of our profession. It is sometimes said that a certain kind of training is well enough for the original investigator. Every physician who is more than a counter prescriber, is an original investigator. He must reach and weigh his own conclusions, and training in this direction must begin early. The thesis, as has been said, ought to have been an important evidence of such training. Remember that it was introduced as a requirement for graduation; and while nothing in the prescribed medical course seemed to lead up to it, it was to furnish evidence that the student had pursued a medical course enabling him to write a thesis. When it became a mere formal matter, it was perhaps well not to continue it. Something of the kind, however, is urgently needed; something that will require the student to exercise his abilities; to see for himself, to go into medical literature and find for himself what he needs outside the requirements of his medical curriculum.

Dr. L. Duncan Bulkley, of New York City :

I have not had much experience in teaching in the colleges. My knowledge of the question is derived from the education of two of my children in medicine, and from examining internes applying for admission to the hospitals with which I am connected. From this experience I have my own ideas. These are also confirmed by the literature of the day, in which the desire of the practitioner seems to be to get something simplified and crystallized, without any reason, argument, or thought. That is what has led up to the crowning evil in medicine—the advertising drug business. The fault in our education has put it in such a way that it opens the way for these people to thrust their materials upon us. We see physicians using these advertised remedies. The profession has not been educated to think, as our forefathers did. This is perhaps due to their education having been more slow than ours, and more from nature. It strikes me that our medical colleges try to crowd in too much, and teach too little. There is too much of minutiae. The students are worked awfully hard, and are worn out with the work put upon them. The question arises whether there should not be a difference made in regard to different individuals, and some be obliged to take even five years.

I agree with Dr. Vaughan that the medical college should not admit every "A.B." without regard to his qualifications. That the students

should be required at the end of each year to write a thesis I think is a grand thought. The written answers which I have seen in examinations of young men for hospital positions are frightful. There is no line of thought concentration or of logic. I think it is the logical mind only that can make the student think aright. It is an enormous question that ought to be threshed out. I think we should bring the matter up, as has been suggested, and that we should have a symposium upon this to crystallize our thoughts each year, until we could, as an altruistic body outside of the colleges, give forth something which would be accepted as more nearly the ideal, at which the young medical man should aim.

Dr. Davis closes :

The first speaker discusses a theory rather than a condition. We have in the same medical schools boys coming from public schools and from colleges. Shall they be put on the same plane? A boy in the Pittsburg schools and many other city schools has all that Dr. Connor mentions as needful in manual training. He is also instructed in business methods but he does not have logic or psychology. The point is we have one set of students who have a great deal more mental training and knowledge than others and the practical question is, Shall we put them in the same classes? One set of these men fails to have what should be very essential to a medical man and the other has it, yet in most medical schools they are put on exactly the same level. We have no such thing as a four years' medical course in America; we have only a two years' course spread over four years. Dr. Bulkley spoke of the amount of work put upon the student. Why as it is now, the student rests almost six months in the year. The microscope is an awfully good thing, but it can be made a plaything. For the practising physician all minutiae are not necessary but I claim logic and psychology are.

Dr. Jackson will tell you in his discussion of reciprocity, that it is a hardship that a man cannot go into another state and practice medicine without an examination. The hardship consists in the fact that the examining board asks him questions long since forgotten, the minutiae upon which he wasted much time in the medical school. I insist that we ought to have entrance examinations in our medical institutions that are not farces. Then we would not have the state examining boards receiving such extraordinary answers from a graduate as "the synovial membrane is a membrane surrounding the glands, the chief of which is the liver." There have been since the establishment of the Pennsylvania State Examining Board 2600 examinations and not a single man who has graduated from a college has ever failed to pass.

In looking up the biographies of the doctors of a hundred years since, in western Pennsylvania, I find the most of them fine botanists and scientists and many college graduates. Some of them never attended medical colleges at all but studied and dissected with their preceptors at home.

Let us be very sure we have advanced in turning out educated doctors because we have a so-called four-year course in our medical schools.



## SECRETARY'S TABLE.

Notwithstanding the Pan-American Exposition shows so great a direct financial loss, the promoters of the Louisiana Purchase Exposition are hard at work to make that event the greatest show on earth. This is not the place to discuss the question of the direct and indirect gains or losses in such expositions. Hardly even the place to tell St. Louis that Buffalo erred in permitting the rumor to go abroad that all the hotels and boarding-houses in the city were in it for all it was worth. There was just enough truth in the rumor to make a dangerous falsehood, and detracted largely from the attendance.

But if expositions are beneficial to mankind, it teaches us that the greatest profits are not always measured by the dollar mark, and the fact can serve to point this moral for the medical profession. That physician who is dominated by the commercial spirit in his life-work, neither reaps the highest reward nor attains the truest success.

We wish every success to the exposition of 1903. The management seem to have the stupendous undertaking well in hand and it is fitting to commemorate the great purchase at the beginning of the 19th century by a great fair early in the 20th.



### NICHOLAS SENN PRIZE MEDAL.

The Committee on the Senn Medal beg leave to call attention to the following conditions governing the competition for this medal for 1902 :

1. A gold medal of suitable design is to be conferred upon the member of the American Medical Association who shall present the best essay upon some surgical subject.
2. This medal will be known as the Nicholas Senn Prize Medal.
3. The award will be made under the following conditions :
  - a. The name of the author of each competing essay shall be enclosed in a sealed envelope bearing a suitable motto or device,

the essay itself bearing the same motto or device. The title of the successful essay and the motto or device is to be read at the meeting at which the award is made, and the corresponding envelope to be then and there opened and the name of the successful author announced. *b.* All successful essays become the property of the Association. *c.* The medal shall be conferred and honorable mention made of the two other essays considered worthy of this distinction, at a general meeting of the Association. *d.* The competition is to be confined to those who at the time of entering the competition, as well as at the time of conferring the medal, shall be members of the American Medical Association. *e.* The competition for the medal will be closed three months before the next annual meeting of the American Medical Association, and no essays will be received after March 1, 1902.

Communications may be addressed to any member of the committee, consisting of the following: Dr. Herbert L. Burrell, 22 Newbury Street, Boston, Mass.; Dr. Edward Martin, 415 S. 15th Street, Philadelphia, Pa.; Dr. Charles H. Mayo, Rochester, Minn.

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### BOOK NOTICES.

REPORT OF THE COMMISSIONER OF EDUCATION FOR THE YEAR 1899-1900. Washington: Government Printing Office. 1901. Vol. I. pp. lxxx + 1280.

This volume contains many valuable articles. Those which will be of most interest to physicians are: Prof. W. O. Atwater's paper on "Alcohol Physiology and Superintendence," the chapters on "Rôle of the School Teacher in the Struggle against Alcoholism" and "Temperance Physiology," and the chapter on "The Readjustment of the Collegiate to the Professional Course," and one on "Public Playgrounds and Vacation Schools." The statistical reports are usually published in Vol. II.

WHO'S WHO IN AMERICA? A BIOGRAPHICAL DICTIONARY OF NOTABLE LIVING MEN AND WOMEN OF THE UNITED STATES. 1901-1902. Edited by JOHN W. LEONARD. Chicago: A. N. Marquis & Co. pp. 1304.

This is a very useful compilation, as it gives a concise sketch of the life of most Americans whose names are appearing in our

newspapers and periodical press. The information given is supposedly accurate, as the copy has been submitted to its subject for revision. When it appears there are nearly 12,000 biographical sketches in the book, some estimate can be made of the amount of labor in its preparation. As a critic, we think we see the characteristics of the subject of each biography appearing in the sketch itself. Thus in some, there are statements rather laudatory, wherein, for example, some commonplace articles in the medical journals are euphonized into valuable contributions to medical literature. As a consequence, a very interesting study of individuals can be made by reading between the lines. This does not destroy the usefulness of the work or make it of less value for consultation.

**THE PHYSICIAN'S VISITING LIST (LINDSAY AND BLAKISTON'S) FOR 1902.**  
Philadelphia: P. Blakiston's Son & Co. Prices from \$1.00 to 2.25, depending on the size.

No introduction to this excellent annual (now in its 51st year) is needed by the physician in practice for some years. It has so admirably answered its purpose that those who have used it the longest are its warmest friends.

**THE PHYSICIAN'S POCKET ACCOUNT BOOK**, consisting of a manilla-bound book of 208 pages and a leather case. By J. J. TAYLOR, M.D. Price \$1.00, complete. Subsequent books to fill the case, 40 cents each, or 3 for \$1.00. Published by the Medical Council, Twelfth and Walnut Streets, Philadelphia.

A physician of some 35 or 40 years' practice recently remarked in the hearing of the writer of this, that he would be worth \$20,000 more than he was had he been prompt in sending out bills. Bookkeeping is disliked by most physicians, and many methods of easy keeping of accounts have been devised. Most of these involve the use of signs, which render the account book of no value as evidence. The book under notice is one of the simplest, as well as the most efficient that has come under our notice. It is not as complete as a carefully kept set of books by double entry, but the physicians who will use truly scientific bookkeeping are rare, and this device is to be commended as requiring the minimum of time to use, and being available for every purpose for which account books are employed.

**JOURNAL OF THE ASSOCIATION OF MILITARY SURGEONS OF THE UNITED STATES.** JAMES EVELYN PILCHER, Editor.

While numbered Vol. X., No. 1, this is the first number of the journal, the previous volumes being annual transactions. Major Pilcher is to be congratulated upon the handsome appearance of his initial number. It contains the transactions of the last meeting of the Association. It is promised, in addition, to present timely contributions upon military medicine and surgery in the interval between the meetings. To furnish in full or in abstract all important contributions in its field from current literature, and to present current news relating to the personnel of the organization. This will make the journal a valuable work for convenient consultation.

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### LITERATURE NOTES.

#### REPORTS OF STATE BOARDS OF HEALTH.

- I. **TWENTIETH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF NEW YORK FOR THE YEAR ENDING DECEMBER 31, 1899.** Albany: James B. Lyon, State Printer. 1901. 2 vols. pp. 555 and a volume of maps.
- II. **TWENTY-EIGHTH ANNUAL REPORT OF THE SECRETARY OF THE STATE BOARD OF HEALTH OF THE STATE OF MICHIGAN FOR THE FISCAL YEAR ENDING JUNE 30, 1900.** Lansing, Mich.: Wynkoop, Hallenbeck, Crawford Co., State Printers. pp. 272.

I. The New York report is devoted to the sanitary inspection work of the board: it is neither padded by abstracted matter, nor does it contain the results of scientific experiment. It must not be supposed it is of less value as a consequence, because, in many instances the account of an inspection and the suggestions resulting therefrom furnish valuable information useful elsewhere.

II. Dr. Baker's reports are always of value. No other board has furnished so valuable a study of the sanitary conditions connected with communicable disease as the series of reports of the Michigan Board of Health, and the volume under notice increases the value of the preceding series.

#### TRANSACTIONS OF MEDICAL SOCIETIES.

- I. **TRANSACTIONS OF THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA.** Meeting of 1901. Montgomery, Ala.: The Brown Printing Co. 1901. pp. 508.

- II. TRANSACTIONS OF THE MAINE MEDICAL ASSOCIATION. 1901. Vol. xiv, Part I. Portland : Stephen Berry. 1901. pp. 223.
- III. MEDICAL COMMUNICATIONS OF THE MASSACHUSETTS MEDICAL SOCIETY. Vol. xviii, No. 3. 1901. Boston : David Clapp and Son. 1901. pp. 597-951 ; 69-95.
- IV. TRANSACTIONS OF THE RHODE ISLAND MEDICAL SOCIETY. Vol. vi, Part II. 1900. Providence : Snow and Farnham. 1901. pp. 147-277.
- V. TRANSACTIONS OF THE STATE MEDICAL ASSOCIATION OF TEXAS, THIRTY-THIRD ANNUAL SESSION. 1901. Austin Von Boeckman, Schutze, and Co. 1901. pp. 463.
- VI. TRANSACTIONS OF THE VERMONT STATE MEDICAL SOCIETY. 1900. Burlington : Free Press Association. 1901. pp. 195.

I. The Alabama Association has a threefold function: it is a medical society, the state board of health, and the board of medical examiners, and this goodly volume gives reports of each function. At the meeting at Selma last April, in addition to the executive and scientific business of the Association, the reports of those officers of the Association, who compose the state board of health and the medical examining board were presented; and they are included in the volume. It speaks well for Alabama, that a plan which recognizes the value of the profession of medicine has been adopted, and works smoothly.

II. Among the many commendable items in the Maine Transactions, two will be noted here. Committees reported upon the Portland School of Medical Instruction, and the Medical Department of Bowdoin College, and on the Maine General Hospital. While it is possible for a committee to make a report of mere complement it is an excellent idea for a state society to think enough of these objects to have a committee report, and sometimes the reports would present valuable criticism.

III. Massachusetts is always in the front rank in the value of the papers read before its state society, and this volume is no exception to the rule. The "Annual Discourse," by Dr. George E. Francis, of Worcester, on "Medical Prospects," is a study of the probable condition of the profession in the present century. His conclusions are :

That specialism will increase and competition will become more fierce, we may feel confident as of any future event.

That medical treatment will become more scientific in its basis and methods; that disease will be more effectively prevented; that hygienic

agents will largely supplant drugs,—all these seem to be among the strong probabilities.

Very probably the family doctor is about to be eclipsed for a time; perhaps to reappear later in a more glorified aspect. The darkest cloud which rests upon our future seems to arise from the combined forces of greatly increased competition, and the growth of socialistic and cooperative ideas.

IV. The annual address on "The Medical Library as a Factor in Medical Progress," by Dr. George D. Hersey, and "Fatigue in School Children," by Dr. Alfred M. Merriman are the two papers in this number coming within the limits of the Bulletin for review. Valuable papers but not permitting a useful abstract within the space at command.

V. Dr. West's papers on "The Medical and Sociologic Aspects of the Galveston Storm," and Dr. Turner's on "An Ideal Eleemosynary System," are the principal sociologic papers in this volume and are interesting. Dr. Turner's paper deals largely with local conditions.

VI. In Vermont the custom pertains that has been commended in Maine, and the state society receives a report of the condition of Dartmouth College. The effort is making to extend the influence of the society by a more thorough organization of the profession in the state which is to be commended.

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#### ADVERTISERS LITERATURE.

The Rio Chemical Company, which, by the way, has moved its office from St. Louis to New York, has issued a portfolio of colored plates, copies of well-known paintings concerning medicine and medical men. They have very carefully confined all advertising to the back of the plate. They are admirably executed, and the drawing and coloring are very well done.

The Maltine Company, of Brooklyn, are issuing a series of pamphlets containing portraits of the Surgeons-General of the United States army.

These albums are for complimentary distribution to the medical profession, which fact affords an interesting study of the outlay undertaken for advertising in these latter years.

# BULLETIN

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THE AMERICAN ACADEMY OF MEDICINE is not responsible for the sentiments expressed in any paper or address published in the BULLETIN.

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### RECIPROCITY IN MEDICAL LICENSURE FROM THE STANDPOINT OF THE PHYSICIAN WHO CHANGES HIS RESIDENCE.<sup>1</sup>

BY EDWARD JACKSON, A.M., M.D., Denver, Col.

It may be asked—are there enough physicians, who have this standpoint, to make it worth considering in this discussion? Taking Polk's Medical Register as the basis and comparing the editions of 1896 and 1900, representing the changes of four years, I find that in Philadelphia, 1.6 per cent. of all the physicians of the city had removed there during that period, after previous practice in other states. This is based on the previous location in each case and cannot exaggerate the proportion; but so far as it is inaccurate, must be an underestimate. Studied the same way, the number of physicians settling in Denver from other states and remaining there at the end of the four-year period was 11.1 per cent. If we assume the average professional life to be twenty years, this would indicate that 8 per cent. of the physicians of Philadelphia, and 55 per cent. of those in Denver would at some time have made such a change of location. Investigation of changes in smaller towns and country districts, with which I am familiar, indicates that removals are there somewhat more frequent than in the large cities.

I have taken Philadelphia and Denver as representing regions

<sup>1</sup> Read before the American Academy of Medicine, St. Paul, June 1, 1901.

where such removals are least frequent and most frequent. The differences between them arise from differences in age of the cities, in climate and in medical law. It would probably be safe to estimate that, throughout the whole country, at least one out of every four or five physicians, at some time finds himself compelled to secure the license to practise in another state. What larger proportion come to consider the question, but confronted with this requirement, remain where they are, it would be impossible to say; and some, because of such a state barrier, remove within the limits of the same state, or leaving it give up the practice of medicine. Enough has been shown to prove that there is a large interest in the profession in the question under discussion, from this particular standpoint.

What this particular point of view is, may be best conceived by each of us imagining himself compelled to take the examination for the medical license in one of the states that has a good medical examiners' law, as Pennsylvania or Minnesota. I have often heard the matter spoken of by men standing above the average in the profession; but I never heard one express confidence in his ability to pass such examination, without special study for it. Not that he was conscious of need for this study, to enable him better to practise his profession, simply that he would have to study up for the examination. Those of us who have taken an active part in securing the passage of such laws, know that this feeling upon the subject is so general and strong, that if it had been a question of requiring all physicians already in practice to pass these examinations, there probably would not to-day be a medical examination law upon the statute book of any state in the Union. The profession as a whole would not submit to the hardship imposed. But the feeling of professional brotherhood is not sufficiently strong to prevent us from allowing that hardship to fall upon first one and then another individual, until, as has been pointed out, a large proportion at some time have to endure it.

It will probably be urged that the examinations for the medical license are adapted especially to test the preliminary studies of those who are just entering upon practice, because they constitute the large majority of applicants. But it may easily be



replied, that if such is the purpose for which the examination is suited, it should be used only for that purpose, and not applied to that class of cases to which it is not suited. Examine along the usual lines, the student fresh from the study of chemistry, anatomy, and physiology. But for the practitioner, who does not assert a brand new knowledge of these subjects to be his qualification for practising medicine, let inquiry be made as to the qualifications he does possess.

The protection of this community from incompetent practitioners does not require the examination in chemistry of John Smith, who has practised surgery for 15 years in New York or Boston, any more than it requires a similar examination of John Jones, who has practised the same number of years in Minneapolis or Duluth; and who, perhaps, never was as much interested in chemistry as Smith; never knew as much about it, and forgot it more rapidly. The protection of a community demands, that if one is subjected to such a test, all should be. If one is compelled to remember chemistry for 15 years so as to pass such an examination, all should be.

To examine one and require him to come up to a certain high standard, and so to create the impression that such a standard is exacted of all, while 9 out of 10 could not come up to it, is to foster a false sense of security. Misplaced confidence, thus bred, only renders the community more liable to suffer from incompetence and imposture.

A medical law that does this, cannot stand on the basis of serving the general interest. Its purpose will be seen to be the furtherance of some private interest, as the limiting of competition in a given community, or the compelling of students to go to the school whose training is most sure to enable them to pass the state examination.

A law that does this cannot long be defended against the attacks of those other private interests that are injured by it. Every weak point of the kind, although it be not directly an object of assault, lessens the hold of a medical law upon popular favor; and renders it vulnerable to the attacks of those who wish to make openings in it for the benefit of this or that sect or group of faddists. In brief, no regulation of the practice of

medicine will be effective and permanent unless it keeps close to truth and justice. The convenience of medical examiners and the supposed feebleness of those who are treated unjustly will not in the long run successfully apologize for a departure from principle.

Perhaps, if it were just as easy to provide for the special case of practitioners coming into one state from another, as it is to ignore that case, no one would object to doing it. At least the reason given for not doing it is usually the difficulty. The real importance of the chief difficulty we shall examine presently. But it is not hard to imagine a possible plan of doing it.

Reciprocity has been proposed as the plan. But the proposal, as its name indicates, seems not so much to do something now, as to wait until somebody else will do something; or until all the states will agree to do the same thing. From the standpoint of the doctor who wants something done, the prospect it offers is not very hopeful. Reciprocity, as a complete scheme, to get into working order when all the states, or a considerable number of them, have been brought to agree upon it, looks like a remote possibility. Reciprocity as an actual condition, as an honest attempt to conform to the article of our constitution, that says, "the citizens of each state shall be entitled to all the privileges and immunities of citizens of the several states," will begin when any one state board of medical examiners adopts certain simple regulations recognizing the chief facts of the situation.

In several of the laws creating these boards, a clause exists empowering them to accept the certificates of other state boards of similar character; although for the reason presently to be referred to, this has usually remained inoperative. But even such a clause is not necessary. A reasonable examination in the practical branches of medicine and surgery is not a very serious hardship to the practitioner of some years' standing. He would rather scorn the imputation of fear of such an examination. Even to be compelled to freshen up his knowledge of these branches by resort to the most recent text-books would be no hardship. The trouble is with the branches that, every one admits, after leaving college, are commonly not cultivated in such a way as to prepare for the usual examination upon them.

If a state board of medical examiners would accept the license of another state board as evidence of sufficient knowledge of chemistry, anatomy, physiology and general pathology on the part of its holder the greatest objection to the present system would be removed. In simple justice this should be done, whether the board of the other state takes an attitude of "reciprocity" or not. Such action is more practical than any scheme of formal "reciprocity," because it might be made to apply between states, the medical laws of which are too diverse to permit of regarding the licenses issued by them as equivalent.

But the objection that will be offered to any such suggestion, the objection that is offered to every suggestion looking to making medical laws more just to those who must change residence from one state to another, is that it may "lower the standard." The board of medical examiners of each particular state, clothed in the sovereign authority conferred upon it by its state legislature; selected by the wise and discriminating care of the governor (or his political backers); conscious of its own high aims and exceptional fitness for its office, is loath to admit that any other state board, or that most other state boards will fix and maintain such a "high standard." And that the standard should by any possibility be lowered or should not be pushed up so far as the board of examiners standing on tip-toe are able to push it, is assumed to be the greatest possible calamity.

If in any state objection is made to the attempt to apply common sense and secure justice in some such way as has been indicated, because it might "lower the standard," these questions should be asked of the objectors: Do you have osteopaths, Christian scientists, doctors of refraction, midwives, magnetic healers, medical electricians, *id genus omne*, within your borders? Are they so established and popularly regarded that the people who most need protection by medical law do not know the difference between them and the regular medical profession? If you do (and in what state are they not so confounded with reputable physicians), your standard has been raised too high already, so high that you cannot effectually use it for the protection of the community, and too many are slipping underneath.

One other point, some one is listening uneasily with the argu-

ment on the tip of his tongue, that if we in any way recognize the certificate of a board possessing a lower standard, the students will all go into that state for their examination, and then come to us for our endorsement, under pretense of removal. Any such evasion would be readily and completely prevented by a very moderate time requirement of practice in the state from which a certificate was brought. Two or three years would probably be quite sufficient to prevent it, even between states with very marked differences in the standard of requirement.

Briefly, from the standpoint of the physician, who has through removal had practical acquaintance with the workings of the medical laws of different states, it appears that the real hardship of removal might readily be remedied by adapting these laws to the actual facts, regarding the knowledge that the practitioner retains, or can be expected to retain, regarding certain elementary studies. The essential obstacle to such adaptation is a false idea regarding the standard that can now be maintained in any American community, as a minimum standard of requirement for taking up the work that properly belongs to the practitioner of medicine and surgery.

## IS THE DEMAND FOR RECIPROCITY BASED UPON FACT OR FANCY?<sup>1</sup>

CHARLES MCINTIRE, A.M., M.D., Lecturer on Sanitary Science, Lafayette College,  
Easton, Pa.

I must apologize to the Academy, first, for presenting two papers in one symposium; secondly, for granting a member of the Committee on Program a privilege denied to others in accepting a paper offered after May 1st. Several papers promised before that time failed to materialize, and this one feature of the subject was not presented, and the committee yielded to the temptation.

In the Bulletin of the American Academy of Medicine for June, 1900, the statistics of the various medical examining boards are tabulated for 1899, while those for 1900 are now in press for the June number of this year. From these two reports certain figures are culled, which may throw some light upon the frequency of a change by physicians from one state to another.

The medical schools made great objections to the publishing of these figures because of the unfair deductions made regarding various colleges. We are charged, they said, with a certain number of failures, and, immediately, it is inferred that that number of the last graduating class failed, whereas most of the failures may be among those who graduated long ago, and under entirely different conditions from those prevailing at the present. The criticism was just, and the effort since that time has been to indicate the year of graduation of those who failed. This column, in those reports, gives us some data for our purpose.

The figures, quoted in this paper, give the entire number examined, the number failing, and of those failing, the number who were not graduates of the last class. For among these alone are to be found those who would be able to make use of any reciprocity clause in the law of any state—and even among these, some would not be applying for an examination in a second state. Hence, the figures are suggestive only. As the

<sup>1</sup> Read before the American Academy of Medicine, St. Paul, June 1, 1901.

reading of a series of figures does not convey a very clear idea, I have had the table mimeographed, in order that you may see them. They are given for every state furnishing the data; some states do not give the information.

Thus we see that out of 511 individuals, where the fact is tabulated, 292 could have had an opportunity of taking a state examination elsewhere. The number is too high. A considerable number of these failed in a first examination, and were coming up for a second only to fail again. It would be far from the truth to infer that of the larger number who were sustained in their examinations, the same proportion of older men presented themselves; at the same time, many such are included in those who received a license, and it will not be an overstatement to assume that the number of those who passed the examinations, who would have had the privilege of reciprocity extended to them, fully offsets the number who failed in the examinations, who had never made the effort to practise elsewhere.

If so, then there are at least 292 out of the total number examined who would have been able to avail themselves of the privilege of reciprocity or about  $7\frac{1}{2}$  per cent.

|                           | Examinations, 1899.    |         |                              | Examinations, 1900.    |         |                              |
|---------------------------|------------------------|---------|------------------------------|------------------------|---------|------------------------------|
|                           | Total number examined. | Failed. | Graduating previous to 1899. | Total number examined. | Failed. | Graduating previous to 1900. |
| Alabama.....              | 107                    | 26      | 1                            | 130                    | 18      | 7                            |
| Arizona.....              | ..                     | ..      | ..                           | 23                     | 3       | 1                            |
| Delaware.....             | 13                     | 1       | 1                            | 16                     | 1       | 1                            |
| District of Columbia....  | 56                     | 11      | 5                            | 59                     | 16      | 5                            |
| Idaho.....                | 16                     | 2       | 1                            | 25                     | 5       | 5                            |
| Illinois.....             | 31                     | 1       | 1                            | 365                    | 7       | 0                            |
| Iowa.....                 | 57                     | 4       | 3                            | 185                    | 11      | 7                            |
| Maine.....                | 86                     | 5       | 4                            | 78                     | 2       | 2                            |
| Massachusetts.....        | ..                     | ..      | ..                           | 286                    | 55      | 32                           |
| Minnesota.....            | 131                    | 31      | 23                           | 182                    | 40      | 31                           |
| Montana.....              | 45                     | 16      | 8                            | 24                     | 13      | 10                           |
| New Hampshire.....        | 28                     | 5       | 4                            | 38                     | 2       | 1                            |
| New York.....             | 746                    | 76      | 48                           | 648                    | 63      | 46                           |
| North Dakota.....         | 44                     | 11      | 5                            | 47                     | 7       | 7                            |
| Ohio.....                 | ..                     | ..      | ..                           | 17                     | 4       | 4                            |
| South Carolina.....       | 64                     | 16      | 13                           | 78                     | 17      | 5                            |
| Tennessee.....            | 18                     | 3       | 3                            | ..                     | ..      | ..                           |
| Utah.....                 | 26                     | 3       | 3                            | ..                     | ..      | ..                           |
| Virginia.....             | 164                    | 36      | 5                            | ..                     | ..      | ..                           |
| Total.....                | 1632                   | 247     | 128                          | 2201                   | 264     | 164                          |
| Total for the two years.. | 3833                   | 511     | 292                          |                        |         |                              |

## THE DESIRABILITY OF RECIPROCITY IN MEDICAL LICENSURE.<sup>1</sup>

BY J. N. HALL, M.D., Denver, Col.

During a six years' term as a member of the Colorado State Board of Medical Examiners, during four years of which I was secretary of the board, I came in contact with a great number of physicians desiring license. These remarks are based upon this experience.

Of the physicians coming to Colorado probably one-half seek this location on account of illness either personal or of some member of their families. Many of these candidates are men who have been in practice in other states for many years. It would bring a great hardship upon these men, who have neglected elementary studies for years, to be compelled to pass an examination upon them. All of the state examiners lay as much stress upon anatomy, physiology, and chemistry as upon those branches more directly relating to practice, and yet these branches are usually neglected by the practitioner because of work more directly important. Although a physician may have a good knowledge of the anatomy which he uses in every day practice, he may, in a few years, fall far short of passing a technical examination in this subject. The same statement holds true in regard to the other subjects mentioned.

The great majority applying in Colorado are honorable and creditable representatives of the profession. I have known men of great prominence, of national reputation, to be compelled even with our own lax law to study diligently upon primary branches to obtain license in this state.

Although many states fall infinitely below the proper requirements for the practice of medicine, among those which have strict requirements I am sure that reciprocity in licensure would be of the utmost benefit to such men as I have mentioned, without being harmful in any way that I am aware of. I should advocate, however, that no reciprocity be established except among those states having stringent requirements. Of my own

<sup>1</sup> Read before the American Academy of Medicine, St. Paul, June 1, 1901.

taste, I regret to say, that its requirements are not such as would entitle it to admittance under this condition.

Considering the great difficulty in the way of obtaining uniform requirements throughout the union by national legislation, I believe the most practicable step is to establish in the different states, the proper requirements, with the understanding that those who meet such requirements shall not be compelled to pass another examination upon removing to another state.



## AWAY WITH RECIPROCITY !<sup>1</sup>

CHARLES MCINTIRE, A.M., M.D., Lecturer on Sanitary Science, Lafayette College, Easton, Pa.

The title of this paper is suggested by the reputed slogan of the German surgeons soon after the introduction of the Lister technique in surgical operations—"fort dem spray!" They did not mean to give up the great advances brought about by Lord Lister, but only to lay aside the unnecessary and impracticable.

Being in a position where the various phases of the subject somewhat conventionally known as Reciprocity in Medical Licensure are brought to my attention, I am forced to the conclusion that Reciprocity in its strict sense, while ideally desirable, is not only impracticable, but its championing is preventing the accomplishment of the very end sought for.

I wish to defend these theses:

1. *Reciprocity is an ignis fatuus, which will lead us far astray.*
2. *Physicians already possessing the legal right to practise in one state should have privileges, in removing to another state, not accorded to those who have not, as yet, been licensed to practise.*
3. *These privileges must not be such as to act unfairly either to the people of the state or the physicians already legally practising in the state.*

In all discussions where a difference of opinion is possible, it is advisable to carefully define all terms, and formulate all that is taken for granted, that there may be no ambiguity to increase the confusion.

This paper assumes that the purpose of any medical practice act is to protect the citizens of any state from the dangers of unqualified practitioners of medicine. It has the same object as the lantern placed at night by an excavation in the street. The protection, if any, to any members of the profession, is simply "minting" the metal that is in him: he receives the official stamp of the state and is, thereby, enabled to circulate among its citizens.

It is well to remember that those states which have medical

<sup>1</sup> Read before the American Academy of Medicine, St. Paul, June 1, 1901.

practice acts at all worthy the name, divide into two classes: 1. Those which accept certain diplomas as the evidence of fitness; 2. Those which require an examination. In both instances the test is an educational one. The first class have no personal interest in this question, since they do not inquire into the personal knowledge of the applicant.

The analogy between the licensure to practise medicine and minted bullion is at once suggestive and defective. It suggests the annoyance arising from the old state currency before the issuing of United States coin, when the shilling was valued 4, 6, 7, or 8 to the dollar in different parts of the Union. This is paralleled to-day by the different values placed on the license to practise in the different states. It is defective because the limits of value in a minted coin are so narrow that we are safe in assuming their uniformity; while there is no attempt to reduce the ability of the maximum man to the mean value, hence:

The rank is but the guinea's stamp;  
The man's the gold for a' o' that.

A more fitting comparison is the certificate of purity given by the public analyst for any food product. The vinegar, *e. g.*, has the required minimum amount of acetic acid, and the proper amount of solid residue; the vinegar may be far better than the legal standard, that does not concern the official. The license represents minimum qualifications.

With these preliminary statements, let us consider the theses in order:

*1. Reciprocity is an ignis fatuus which will lead us far astray.*

Reciprocity is a species of glove contest—it is give and take with equal vigor, yet for mutual pleasure; retaliation, on the other hand, is the contest without gloves, and with the desire to punish. In the very nature of the thought, there is concession in reciprocity which precludes the idea of strict equality. As the government says to some foreign nation, you give us favored rates on our meats, and we will discount our custom duties on your wines. It is an exchange of horses—gift horses—and their mouths must not be inspected too closely.

If we seek reciprocity, we must seek to secure an agreement

between the various boards for each to accept, without question, the licenses issued by each other. Unless the laws of two or more states can be worded to convey precisely the same conditions as to the preliminary education—which would require the school systems to be similar—and have the same conditions for medical education—which can more readily be stated—and then prescribe precisely similar state examinations, this reciprocity cannot be carried on in the same way that eagles are exchanged for sovereigns, but there must be a large coefficient for the personal factor in the question, and a general averaging of qualifications. Thus Pennsylvania will doubt if New Jersey conducts as severe an examination; Ohio will call attention to the Pennsylvania law that a common school education is all that is required, disregarding the interpretation of the medical council, that a common school education is the completion of the curriculum of the public schools, or a high school course; while New York will say to Ohio, your school courses are so many counts less in value than are ours. Neither board will be willing at the last analysis to permit the board of another state to decide for it. It will be like the clocks in a jeweler's: each varies a little from the others, and there is no present method to synchronize them. Efforts to cause the various pendulums to beat in unison will prove as unavailing in the reciprocity plan, as the same experiment failed when attempted by Emperor Charles V, upon actual clocks. Human nature, as she is lived, is not built that way.

*2. Physicians already possessing the legal right to practise in one state should have privileges, in removing to another state, not accorded to those who have not, as yet, been licensed to practise.*

The law of Minnesota, for example, requires a person seeking the right to practise in the state to present certain evidence of fitness to the board of medical examiners, and it sustains his claims after he has passed an examination. Now, if other and fully equivalent testimony could be furnished the board, which condition could be accurately expressed in the law, it would certainly work no hardship to the citizens at large, nor to those who were already engaged in the practice of medicine, if there were no letting down of the bars.

A physician who has practised in Pennsylvania, let us say, wishes to open an office here in St. Paul. He appears before the state board and submits satisfactory evidence as to his preliminary and medical education. He has fully complied with the law, and he is entitled to take the examination, whereupon he presents evidence that he has passed such an examination some years before. Should the board be allowed to permit this examination to count for anything? The answer to this question will be influenced by (a) whether a physician in the usual rounds of practice should keep himself fully posted in those foundation subjects so necessary for the building of a professional reputation. If he should, then there is little hardship in taking the examination before he is licensed to practise. If it is not necessary, then the evidence of his earlier knowledge should be taken into account, if (b) physicians ever move from one state to another from proper motives. I can recall some cases which seem to illustrate the affirmative of this question. One of my friends was called into another state to a surgical chair in one of the medical colleges; another from a position in an insane hospital to a similar hospital in another state; a third wished to return to the home of his boyhood; and still a fourth, desiring to give up the contract practice of a coal mine, wished to locate in another state. These were all reputable men, and were fully qualified to follow their profession, and each was required to answer the same questions given to the recently graduated medical student. Now, in fairness to these men and many like them, some concession should be given them if it can be done under a uniformly working rule, and with fairness to all parties concerned. It might be said that the man distinguished enough to be called 800 or 1,000 miles to occupy a professor's chair might be admitted upon his reputation. Unfortunately, were this done in one case, there would be the danger of pronouncing it reputation, but spelling it i-n-f-l-u-e-n-c-e.

There must be no temptation of this kind thrown in any one's way. Whatever privilege is given to the older man, while a favor to him, must be fair to all concerned.

*3. These privileges must not be such as to act unfairly either to the people of the state or the physicians already legally practising in the state.*

Any plan which will license an improperly qualified practitioner will be unfair to the people. Any plan which will license a man having submitted to a lighter test will be unfair to the physicians already practising. Can a way be devised that will comply with both conditions? As we have seen, the preliminary education and the medical course are matters of evidence which can be submitted at any time. How can the previous state examination be fairly used? One way would be for each to classify the other boards as they now do the medical schools. The examination conducted by the boards of the certain specified states would be accepted, while those of certain other states would not be considered. There are many objections to this plan. It is merely mentioned for completeness' sake. But it is possible for the person desiring the license not only to submit his license, which is evidence that he has passed in some way some sort of an examination, but he can also present a certified copy of the questions and answers of the examination. This the board can review, and if it is satisfied with the evidence thus submitted, no harm can possibly come to any one by accepting the old examination in place of a new one. If it is satisfactory in part, it can order a supplemental examination on those subjects where the previous examination was not satisfactory. The license in the new state could then be issued without an additional examination, if—and this is essential, although it is not provided for in the proposed plans for reciprocity—if the applicant has conducted himself properly in the years intervening since the issuing of the first license. A licentiate in medicine may be unfitted for a new license by one of two ways of living. I knew a physician who died not so very long ago whose only work on practice was by Eberly, his text-book when he graduated in medicine 40 or 50 years before. It was the same man, I think, who treated a reaping machine cut antiseptically by well dusting the parts with iodoform, and bandaging without ever removing the grass from the cut itself. A man who permits himself to become a back number ought not to receive a new license, notwithstanding a previous state examination until he brings himself up to date. Hence, if a man has been practising for some years, a special examination should be given him, using

questions which will bring out his individual experience, after the provisions of the Virginia law. Again, a man may have indulged in questionable methods, showing his aim is to dupe mankind, not to minister to them. A man of some years' practice should be required to submit testimony as to the manner of his professional life before a license is issued.

I do not propose to enlarge upon this. I believe it is a scheme that will work, that will preserve the independency of the boards, permit the legislatures to indulge in whatever vagary may appeal to their fancy in framing the laws, will conserve the convenience of all who ought to receive consideration from state board of examiners and will work ill to none.

#### DISCUSSION.

Dr. Leartus Connor, of Detroit :

We have certainly before us a proposition of interest and importance. There only needs to be a little common sense in conducting the examinations of physicians who have occasion to change their residences. A board of examiners is not like a machine, doing the same things under the same conditions. It is expected to exercise judgment in protecting the state which it represents from injury and fraud. It is quite a matter of nonsense to carry on an examination for a man who has graduated from college in the same way as for a man who has been in practice 30 years. You cannot ask the boy from college the same questions as a man of 40 years, and the reverse is as true. In either case the thing to be insured is that he is able to give fairly good service, is honest and competent. That rules out of the examination of the 40-year man the details of chemistry, physiology and all that has no definite relation to his practice. There is not a surgeon in this country who can pass a reasonably good examination in anatomy after 10 or 20 years in practice. The examining boards ought to have in mind, the minimum of knowledge such practitioners ought to have. I do not believe it is a proper thing to require the maximum. Nor do I believe it is the proper thing for the examiner to play the "smart act" with catch questions. Examinations may be made to promote discomfort, contention and interfere with scientific progress. Sometimes you can tell better what a man knows by having him talk five minutes of his own accord than by asking questions. I really do not see why the reciprocity cannot be adjusted in a common-sense way and people adequately protected.

Dr. L. Duncan Bulkley, of New York :

I merely want to bear testimony to the value of our New York State Board of Examiners. The members are elected by the New York State

Medical Society and are men of high standard. The committee is appointed by the president, who selects six members and from those six, three are chosen by the regents to be added to the Board of Examiners. There are among them some of the clearest-headed and best men of the state. I don't think they ask any catch questions and they have been very liberal in dealing with men who want to come from other states. Of those turned down in 1899, 48 were graduates of the previous year. Our county medical society has a committee to look after those attempting to practice illegally, and one year spent \$3,000 over and above the amount secured from fines, for prosecuting the irregular practitioners coming into New York. Knowing the class of men on the board of examiners we know they are intelligent men who have sought to keep the standard of the profession in New York State high.

Dr. Albert Goldspohn, of Chicago :

The remarks of the last speaker suggest the exceedingly great importance of public medical officers being appointed or selected by medical tribunals. If that were the rule and not merely the exception in our United States the advice, or way out of the difficulty, given by Dr. Connor would be very effective and would relieve the whole subject. Alas, that is not the case. In the majority of cases political medical appointments are made by purely political authority without any medical advice or sanction, against medical advice and guidance oftentimes, purely as a means which politicians have to reward their favorites. Under those conditions often no reputable medical man will accept an appointment. That being the case in so many of our states, it is not to be expected that the political M.D. in office will exercise that prudence and judgment and suit the questions in an examination of a medical applicant for a state permit, to the cases that there may be no injustice done. An important thing to strive for is to bring pressure to bear, by proper generally credited medical organizations upon the laity, showing the importance of accepting medical advice in public medical appointments. That would do away with the difficulty in this matter of licensing physicians from one state to another and would also overcome other great and greivous wrongs that exist in our day.

Dr. L. Duncan Bulkley :

I would like to know if the appointment of medical examiners in other states is the same as that in my own state. There the board of regents conducts the examinations, but under them are nine regular physicians, three going out each year who are appointed by our state medical society. The board of regents is not a medical body but has control over all our colleges. The board of regents is appointed by the governor.

Dr. S. D. Risley, of Philadelphia :

What positions do the members of the board of regents occupy to justify their appointment?

Dr. Duncan Bulkley (answering Dr. Risley) :

I do not know. One gentleman, Mr. Parsons, has been secretary for a great many years. He is a lawyer with the highest interests of education in his mind. I do not think the board of regents do much of the active work, compared to him. I do know that we simply nominate these six physicians, in order to give them a choice of three out of the six each year. The state medical society meets in Albany while the legislature is in session.

Dr. Risley :

Every man coming before this board must pass the same list of questions?

Dr. Bulkley :

I do not know. I would like to ask if any of the gentlemen know how the medical examiners elsewhere are appointed? Are they appointed by the political powers? If so, each state should take New York as a guide and make an appeal that the appointment be given to the state society.

Dr. T. D. Davis, of Pittsburg :

Do you have but one examining board?

Dr. L. Duncan Bulkley :

I believe that all applicants have to pass the same examination in chemistry, anatomy, everything except in the matter of therapeutics and there they turn to the therapeutics belonging to their own school.

Dr. Bert Ellis, of Los Angeles :

We have recently had passed in California a new medical law which gives to the board of examiners five regulars, two homeopaths and two eclectics. They are all elected by their respective state medical societies and each society also elects a certain number of alternates. Every graduate from the state colleges, and graduates who come to the state after August next will be obliged to pass an examination, and examinations are the same for all, except in materia medica, therapeutics and practice.

Dr. Thomas D. Davis, of Pittsburg :

The Pennsylvania law is organized somewhat after the New York law. We have no board of regents, but have established a medical council consisting of the lieutenant governor, the attorney general, the secretary of internal affairs, the superintendent of public instruction, and the president of the state board of health and vital statistics and the presidents of the three state boards of medical examiners. The different boards submit a certain number of questions and from these are selected certain practical questions. On the regular board only a man can be appointed who has practised 10 years, and is a member of the state medical society. However, the state society does not appoint him, or recommend him, but the governor selects. So far the appointments have been made of



upright, honorable gentlemen who have the best interest of medical education at heart. I have a full list of the questions, which are eminently fair, and no one ought to practise who cannot answer them. True, some hard questions are introduced, so that if in examination a man blunders on an easy question and answers the harder ones, he is given credit for a slip he may have made through embarrassment or haste. There have been since the establishment of the board a large number of examinations and not a single man who ranked well in another state was ever rejected.

On the whole question of reciprocity it seems to me we are stultifying ourselves a little by saying we are not willing to come up for a fair examination in any state. In the ministry and in law a man may have to pass examinations in changing locations. If you are a lawyer, you not only have to pass an examination in different states, but in different counties if you locate permanently. If you go to New Jersey you have to live there three years before you become a full-fledged lawyer no matter how eminent you may be. In the other callings, engineers, pilots, etc., there are similar safeguards. These do not seem such hardships, especially when we have the object of keeping down impostors.

Dr. Victor C. Vaughan, of Ann Arbor :

This discussion has taken a wide range and has left the subject of reciprocity and gone into the question of the organization of medical examining boards. I must admit, however, that I have been very much interested in this digression, and I am very much pleased to know that so many of the fellows of this Academy are posted concerning the rules of the Presbyterian Church. It has been said here that the physician who is compelled to change his place of residence from one state to another and therefore is under the necessity of undergoing a new examination is no worse off than the clergyman or the lawyer who may change location. I must admit that I am not very well acquainted with the rules governing the examinations of the clergymen, but it is certainly true that the examination of young men seeking admission to practice law is in many states not very searching. In some states there is a state board for the examination of those desiring to practise law, but I believe it is still the rule for some court to appoint a committee to ask the candidates questions, and as a rule these are not far-reaching. There is a historical story connected with the life of Washington Irving which is applicable at this point. I had often heard the story, but never supposed there was any truth in it until I happened to tell it to Mr. Charles Dudley Warner, who informed me that the facts were altogether true. It seems that Mr. Irving, after having become famous as a literary man, was desirous of being admitted to the bar, and the lawyers of New York were very anxious to have the honor of treating him as a confrère. In order to be admitted to the bar it was necessary that Mr. Irving should be subjected to an examination before some judge. A time and place of meeting were

set, and the great lawyers of New York, Mr. Irving, and the judge appeared. The judge asked Mr. Irving a few questions, and then leaning back in his chair addressed the assembled lawyers as follows: "Gentlemen, I can say that Mr. Irving knows a little law."

One of the most prominent members of the bar arose and asked: "Your honor, in view of the fact that Mr. Irving has a world-wide reputation, cannot you make that statement stronger?"

The judge replied: "Certainly; Mr. Irving knows d— little law."

This, I imagine, illustrates the kind of an examination to which most applicants for admission to the bar in this country have been subjected.

We are all proud of the work done by many of the state medical examining boards. I am sure that the great advance in our medical colleges, both in the requirements for admission, in the extension of the course, and in the character of the work done, has been more largely due to state medical examining boards than to any other cause. While this is true, I think it is an injustice to require a man who has been in practice for many years, and who is under the necessity of changing his location and going into a new state, to pass a rigid examination in anatomy and other scientific branches. I am of the opinion that the solution of this question proposed by Dr. Jackson is practical and I might say ideal. I hope that Dr. Jackson will present his plan as outlined in his paper to the conference of state medical examining boards now in session in this city.

Dr. L. B. Tuckerman, of Cleveland:

The thing which appeals to us in regard to this question of reciprocity is its utter uselessness in states grossly deficient in standard. A state ought to accept the credentials of a state board only where the standards are equal to its own.

Dr. Leartus Connor, of Detroit:

Every state that has passed a law, legalized about all the quacks that were in it. It will take about a generation for them to die out. If there is an exchange and those exchanged are guaranteed as competent and honest physicians there might be some reciprocity.

Dr. Tuckerman:

If you will pardon just another word, I would like to say that in mathematical series there are certain diminishing quantities in each successive term which we can ignore in a long calculation, and as the condition of admission of new men becomes more and more strict we can count on the fact that the old ones are all the time dying off and we can shape our plans and practice to the fact that the number of those who came in 20 years ago or more under lax conditions of admission is a constantly diminishing factor of the medical profession as a whole.

Dr. Charles McIntire, of Easton (closing) :

My paper attempts to show that the existing medical practice acts render reciprocity impossible; and that, for the political condition existing in our country, the end to be desired can be more satisfactorily accomplished in some other way.

The laws of most states specify distinctly that a written examination must be taken, and the same set of questions be given to each applicant at any one examination. It would require very little change in the law of any state to permit a board to mark upon the answers to the questions of another board, if these answers had been made during a regular examination before that board.

As Dr. Vaughan has said, the discussion has gone far astray, which has added to its interest and value. I am not wandering in new paths, if I mention some of the peculiarities in the laws of some of the states. New York has three separate boards appointed upon nomination of the state medical societies. Each board is supposed to prepare a full set of questions on each subject, and the examiners of the University of the State of New York make out the final papers from the questions submitted.

The Board of Regents of the State of New York is ordinarily composed of able men, not partisans in any sense of the word. I say ordinarily because I have never examined a list of all the regents and am not in a position to make a more positive statement. This university is not a teaching body, but has oversight of the educational interests of the empire state, and has done a wonderful work in all grades from the primary school to the universities.

In many states, besides New York, the medical examining boards are more or less under the control of the state societies. In most of the states the state examination is required of all who intend to practise. In some, this examination is only for those who hold a diploma granted by an institution situated in some other state. This was true lately of Tennessee, resulting in the development of some curiously worded diplomas "Made in Tennessee." But Tennessee saw her folly and has gone back to her former practice of examining all applicants.

The Virginia law is the only law which permits the board to give a different examination to a physician of some years' practice from that given to a recent graduate. It is necessary for the applicant to give evidence of having passed an examination before a board whose requirements are equivalent to those of Virginia; that he has maintained his professional integrity, and then to satisfy the board that he has a sufficient practical knowledge of medicine to be licensed to practise in Virginia.

In all the examinations the questions must be the same and the answers in writing, that they may be made a matter of record. They are usually filed away as a matter of protection, should an appeal be made to the Courts upon a claim of alleged partiality. Unless we can devise some way by which we can harmonize these laws, reciprocity or any pro-

cedure by which a physician can acquire a legal right to practise in another state without standing an examination upon the elementary branches cannot be accomplished.

Dr. Jackson (closes) :

The examination by the state medical examining boards have been compared with the examinations of ministers, and those passed by lawyers. I think they are different affairs, both in law and practice. In those states which have rigid medical laws the examination is a very much more serious thing than the average examination for admission to the bar. The examination for admission to the practice of medicine should be a different thing. The lawyer's knowledge of law is on trial every day of his practice, in every term of court before the judge, before his colleagues, before the world. The minister's orthodoxy is on trial at least one day of the week and if there is anything seriously wrong with it, it is on trial every day. The qualifications of the physicians are not, however, subject to the same public scrutiny. If we are to have medical examining laws which shall amount to anything, they must be of a more formal and serious sort. Being a state examination and a matter of record it is difficult to adapt it to the individual case. It is impossible with a written examination to do everything that reasonable men would like to do, because some of the most significant evidence as to fitness or unfitness it would be almost impossible to require in a written examination. These examinations are necessarily somewhat rigid and inelastic. They need not, however, be quite so much so, as they have been thus far. It seems to me that to obtain laws allowing medical examining boards to recognize as sufficient evidence, the examinations passed in other states upon certain individual subjects would best meet the case. It is perhaps a decided advantage that the old practitioner should be examined in surgery or medicine, that he should show himself qualified in the surgery or medicine of the present day. The examinations in anatomy, chemistry, physiology, and pathology, are probably more uniform throughout a large number of states, than the examinations in other branches. In the protection of the community there would be less lost by accepting a former certificate on these subjects than on the so-called practical subjects.

But this is a thing in which no one state will be swift to take the initiative. It looks like 'lowering the standard,' and as long as the pressure keeping men out of other states is kept up, making it a little easier will be argued against as likely to invite an undue proportion of practitioners from other localities into one particular state. It will therefore require good backing for the profession in any state to make such a change in its medical law ; and it seems to me the importance of this discussion may be chiefly in securing some backing for a movement of that kind, that this body or other national bodies should endorse it. It should be put in proper shape first in national gatherings and then it may

be acted upon in the several states. The existence of state examining boards is most clearly traceable to the American Academy of Medicine. Up to the time of our existence there was no such thing as a state examining board law, except in North Carolina, and there the law was not compulsory. From the discussion in the Academy the matter went into the American Medical Association and before the various state societies. If the Academy feels that this is a matter of enough importance I think that something looking to more formal action would be proper.

Dr. L. Duncan Bulkley :

Would it not be wise for the Academy to have a committee on this topic. I should move that a committee of three be appointed to take this matter into consideration, and, if deemed advisable by them, to present the matter in some form at our next meeting.

Dr. Edward Jackson :

It seems to me it would be in accordance with the resolution adopted this morning that this should be referred to the Council.

Dr. L. B. Tuckerman :

If it is in order I would remind the Academy that the Committee on National Legislation appointed a committee to consider that same subject, at the February meeting in Washington, D. C.

Dr. S. D. Risley :

The term "Reciprocity" is one of those soft words that conveys no sense of harshness in tone or meaning. It will be remembered that when the late Secretary Blaine employed this very enticing phrase the nation felt that within its soft meshes was concealed the golden key that should discover the mysteries and remove the difficulties underlying our reciprocal international trade relations. So it comes to us with mild but, judging from this discussion, illusive promises to remove the difficulties which lie in the way of interstate regulation of licensure for the practice of medicine. It is very desirable that just reciprocal relations as between the states should by some means be secured. That there are many and serious difficulties to be met, and I trust overcome, has been made only too obvious by this discussion. Notwithstanding the fact that no solution of the problems suggested by "Reciprocity" has been reached I think nevertheless that the endeavor to solve the difficulties should not be abandoned. I am glad that it has been made my duty by Dr. Bulkley's motion to appoint a committee for its future study.

## SECRETARY'S TABLE.

### TETANUS AND ETHICS.

Sad as are the reports of death from tetanus following the use of antitoxin injection or vaccination (or coincident with their employment), the discussion of the causation and prevention belongs to other journals. There are two facts which come within the purview of the Bulletin :

1. Should the manufacture of vaccine virus and antitoxin serums be undertaken by the municipality or the state? This question has been raised by the medical journals and, as far as our observation has gone, answered by a negative. The reason assigned for the negative opinion is, either the municipality will not vote an appropriation sufficient to employ the proper precautions ; or, those in charge of the plant will be selected for partisan reasons and not for scientific attainments. In view of the recent displacement of the Health Officer of Buffalo, one is forced to recognize the possibility of such a procedure.

Neither of these reasons answer the question as formulated, clearly the municipality ought not undertake its manufacture as a matter of commerce ; it is then an act of charity, or of the exercise of the police power. If the former, it is liable to all the abuses of the free dispensary, and as much care should be taken to preserve the self-respect of the unfortunate who uses it, as its purity in preparation. If the latter, the question arises : how far does the power of the police extend to prevent diaster? A policeman may try the door of a house and finding it unlocked, may inform the owner of his danger. But the city would not thereby be justified in maintaining a locksmithy, and supply all who need locks, with a lock to prevent thieving. To get a little nearer home, wet feet is the immediate cause of disease and death. No city thinks of providing the operatives of a mill with rubber shoes, should a snowstorm come up during the hours of work, and every inmate be liable to " catch their deaths of cold" by returning home with leaky shoes. Paternalism, even when masquerading as socialism, will not develop the most self-respecting class of citizens.

2. The second fact is the commercial use of these sad occurrences to exploit this or that manufacturer. It is perfectly legitimate for a manufacturer to make investigations for the purpose of ascertaining whether any of the accidents occurred among patients using his product. It is not objectionable for him to publish the results of his investigation if he does it honestly. The statement of no accident proves nothing, if, as in some instances, the tetanus was the result of careless nursing:—It is negative testimony at the best. But more than this tends to misstatements and falsehood and should be frowned upon by physicians and reputable manufacturers.

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#### PATRONS TO SCIENTIFIC RESEARCH.

A few months ago, attention was called to some instances illustrating how our larger and better pharmaceutic establishments were becoming patrons of pure science. The idea was commended, and it is pleasurable, to be able to add another example to the list already published. The Maltine Company, of Brooklyn, offer two prizes of \$1,000 and \$500, for the two best essays on "Preventive Medicine." The prizes are sufficiently valuable to attract some careful writers, and the outcome must certainly be a gain to medical literature.

Drs. Daniel Lewis, President of the New York State Board of Health, of New York, Charles A. L. Reed, ex-president of the American Medical Association of Cincinnati, John Edwin Rhodes, of Rush Medical College, of Chicago, are the members of the Committee of Award. The essay must have 10,000 words as a minimum, of which three type-written copies must be sent to the Maltine Company, by September 1, 1902. The usual precautions of a pen name to the essay, and an accompanying sealed envelope bearing the pen name and containing the author's name are provided for. We hope for some valuable contributions to the science of medicine as a result of the competition.

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#### TO IMPROVE THE ARMY MEDICAL SERVICE.

The Bulletin is in receipt of a communication from a Committee of the Medical Officers of the Army, stationed in the

Philippines, enclosing a proposed act, which is to be submitted to Congress, rearranging the relative number in the various ranks of the medical service. The contention is that the proportion of the higher grades is so small, that few assistant surgeons can ever hope to reach a higher grade than that of captain; that this fact prevents young men entering the service. It is also alleged: "In no other staff department is promotion so reduced as in the medical department."

It is due to our profession that every one investigate this question and, should he agree with the committee, bring the subject to the attention of individual congressmen. Directly if he is acquainted with them; indirectly through his friends or patients who are so acquainted if he is not. Several copies of the communication were sent, which will be sent to such as may desire them until the supply is exhausted.

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#### WORTH REPEATING.

Dr. Charles T. McClintock, in his president's address before the Detroit Medical Society in 1901, on "Some Sociologic Problems of Medicine," presented some very suggestive and pregnant thoughts. The Bulletin is indebted to the *Physician and Surgeon*, of Detroit, the official organ of the Society, for permission to publish a part of the address:

Listen to the code: "As good citizens, it is the duty of physicians to be ever vigilant for the welfare of the community, and to bear their part in sustaining its institutions and burdens; they should also be ever ready to give counsel to the public in relation to matters especially appertaining to their profession." Again: "Medical men should be always ready, when called on by legally constituted authorities, to enlighten coroner's inquests and courts of justice on subjects strictly medical."

As it appears to me, many physicians are woefully ignorant as to the location of the boundary line between right and wrong in this field. We have had the rather amusing spectacle of a physician on the floor of this society quoting the evidence given in court by another physician who had been summoned by the state to assist it in prosecuting parties who were said to have sold poisoned food for the children of this community, quoting this testimony as an example of wrongdoing.

As I understand the matter, there is no question of right and wrong if a physician chooses to inform the newspapers every time he goes out of town, writes an article, delivers an address, or does something a little out of the ordinary. It is a question of manners, not morals;



he is lacking in modesty and self-respect. It is essentially the same thing as when Mrs. Smith requests the paper to announce every time she invites Mrs. Jones to tea. Simply vulgar, an attempt to gain prominence not voluntarily accredited to him. But when the physician through the public prints makes claims to exceptional skill, cites cases and operations wherein he succeeded after others failed, plainly bids for patronage, he becomes a charlatan and should be so characterized by our societies.

The newspaper is the principal means of communication between the quack and his victims and unquestionably the most powerful enemy of the profession. They persistently defeat any attempt of congress or state legislature to regulate the sale of dangerous or worthless medicines. Their columns are usually open, for pay, to the quack, the procuress and the abortionist. But it will usually be found that newspaper editors and their assistants are aware of the harm of such and are at heart opposed to the policy of their business managers on this subject. This means that space is usually accorded the physician who has anything to say to the public. The proposal of a member of the American Academy of Medicine is worth considering. He says: "Would it not be preferable for the profession to come forward boldly and address the public through the public press regarding all sorts of ailments, thereby preventing their accepting the beguilements of charlatans?" I can picture immeasurable good that might come to this community from a series of carefully prepared newspaper articles on medicine, its limitations, uses and abuses, coming from one of our older physicians who is an authority in the community. As said before, I believe it is our duty some way, somehow, to assist the people in choosing their medical advisers; so the medical society should be, either directly or through its appointed representatives, an advisory body for the community on medical matters.

In the profession at large, there is a feeling of unrest and dissatisfaction among the majority of physicians. Life has become more complicated, living more costly, while their income has not proportionately increased. No longer is there the dog-like confidence of the people in the physician. They dare question his advice and presume to ask what his pills and potions are expected to do.

According to the treasury statement, proprietary, stampable medicines paid during the last fiscal year four million dollars in revenue taxes, or, as the tax was two and one-half per cent. of the selling price, there was sold for the year one hundred and sixty million dollars worth of such medicines. A very small part of this amount was paid by patented medicinals, principally German synthetics. But I should say that at least one hundred and fifty-five million of this was medicine that was sold directly to the people. For the same time, one of the best informed pharmaceutical journals of the country estimated that the entire sales of strictly pharmaceutical preparation was ten million dollars. The one hundred and sixty million does not include the salts, pills, herbs, and forty and one non-taxable medicines sold directly to the people. But making all allowances, I feel sure that I am well within bounds when I say not one-tenth—probably not one-twentieth—of the medicine used in this country is prescribed by its physicians. What an awful, woful lack of confidence in us!

Several explanations may be offered for this state of affairs. It may be said that the people are usually mistaken as to the need for medicine; that the majority of the ailments for which they seek relief in drugs are self-cured. Then where did they get this idea that every ill of the body should be followed by drug taking? From us? As a body it is our custom to give them drugs for any and every complaint. We are to blame. Again, it may be said that the people would prefer to go to the physician, but that they cannot afford to pay his fees every time they have a slight ailment. Then it follows that our services are not worth to the world the price we ask for them in all these cases. Still again, it may be said, the people are mistaken. If they would go to the doctor every time they feel ill, take his prescription, pay his fees, they would be better off in every way. I hope it is not treason to doubt this. But suppose the statement be true. What a commentary on our teaching and practice! Ours is an ancient art—the doctor antedates history. Yet after all these centuries of observation of our work the people are not yet convinced that in the average case we can do better for them than they for themselves.

Is not the correct explanation this? By our teaching and practice we have led the people to believe that in drugs we have remedies for almost all bodily ills; that our *medicine* is all we have to give? The patient comes to us, we attempt to look wise, ask a few questions and give him medicine. Does it appear to him that he has gotten anything but medicine? And is not the conclusion a very natural one, that this bottle of medicine, which he can get at the corner store for fifty cents, all duly labeled, with explicit directions, and accompanied by hundreds of testimonials of people who have been cured by it—that this is as good or better medicine than DOCTOR JONES'? It must be good medicine, else so many people would not use it.

We are responsible for the medicine habit; on our heads belongs the blame that the people ask for drugs instead of a physician. One hundred and sixty million for secret nostrums; ten million or less for physicians' drugs! Ay, but the people are so ignorant in medical matters—we are and have been for centuries their teachers—and it is far from being the ignorant only who show a lack of confidence in our profession. The best educated people of the community are often found paying tribute to Christian science, osteopathy, *Similia*, and the like. Rulers and statesmen give testimonials to Peruna. The fact that intelligent people run after every medical fakir, Indian herb, Chinese or Voodoo doctors, is less of a reflection on them than on us. Why is it that the people have not confidence in us? My friends, looking the facts squarely in the face, there can be but one answer. We do not deserve it. By our attitude, if not our words, we practically promise, in every case we undertake, betterment, or at least amelioration, and we fail to deliver the goods. Too often it is a case of obtaining money under false pretenses. Blame the other fellow. Yes, his faults and failings are many but to-night we are considering our own. Would *you* trust the average doctor to treat you? Take his medicine without a question? Follow the life he prescribes? Submit to the operation he advocates? Would you? Then, why blame your neighbor, the merchant or harness-maker, if he shows a lack of confidence?

If I am right, the greatest mistake the profession is making, is in its too implicit reliance on drugs and in leaving or leading the world to believe that drugs are all we have to give. One firm in this city is said to make more than five thousand different combinations of drugs. I believe it safe to say that more than ten thousand different mixtures and combinations of drugs are being used by the physicians of this country. Has not this passed into uttermost nonsense? Again, how many new preparations of drugs are called to your attention each year? Note the ever-changing panorama in the advertising pages of our medical journals. It appears to me that an impartial jury, with these facts, might well return the verdict that "we know not what we do."

Relying so much as we do on drugs, an outsider would certainly suppose that we were thoroughly conversant with all the ingredients and properties of those we use. Is it so? How many here have ever used antikamnia, potonuclein, listerine, cystogen, or any of the one hundred and one concealed-formula preparations that are sold to the physician? Several years ago I attempted to poke fun at the representative of an eastern concern by asking how it was that he could sell such a worthless preparation. His rather contemptuous reply was: "Claim enough for it and you can sell anything to doctors." The sad part of it was that he told the truth.

Much is written nowadays on the overcrowding in the profession. We read of physicians in some countries receiving fifteen cents for a call. But note again the enormous field which should be ours which we fail to occupy. More than one hundred and seventy million of medicines used; less than ten million supplied through physicians. Has it occurred to you to ask why, of the millions on millions given in recent years for the endowment of schools and colleges, only a pittance here and there has been given for medical education or research! It must be, either that our work is unworthy, or that we need to be censured for not acquainting the world with its worth and needs. In either event the blame belongs with us.

Reviewing the conditions I have described, it seems to me that we must conclude that in many respects our profession is in a bad way. We fail to command the respect and confidence that ought to be ours. Notwithstanding all our claims of ability and skill, the world prefers to do by far the larger part of its own doctoring. It is humiliating to confess that after all these centuries of medical work a well-educated man of affairs having to choose between the best trained physician of his community and an illiterate, unkempt quack, the latter is often his choice. I am sanguine enough to believe that these troubles are not beyond relief. But we must recognize clearly that they are of our own making, or at least permitting, and are to be remedied, if at all, by ourselves and not by legislators.

We need to recognize clearly that we are relatively ignorant of disease, and woefully ignorant as to remedies. We need more students and fewer practitioners of medicine. Perhaps the greatest of our needs is to lessen the incompetents in our ranks and to frown down those who make a trade of the profession and bring the whole into disrepute. We must teach the world that they are doctors and doctors. They cannot choose wisely; we must aid them in their choice. The practice of medicine must stand on its merits in the full light of day.

The day of authorities *was*. The time when the doctor could look wise, pour out some powders or pills, mutter a few polysyllabic words, and then be credited with all but supernatural wisdom, is passing. The man of affairs counts the cost and reckons the gain when he comes to us, pays a dollar for a prescription, and when he goes to the corner store and buys Stuart's Dyspepsia Tablets or Bromo-Laxative Quinine for a quarter. We must be able and willing to stand the comparison. The doctor must be worth all and more than he costs the community. May the Detroit Medical Society have a fair share in solving these and other problems of our profession.

### LITERATURE NOTES.

**JOURNAL OF SOCIAL SCIENCE**, containing the proceedings of the American Association for the Washington Meeting, 1901. pp. 216.

The transactions of a society whose field of research overlaps that of the Academy and extends beyond it, since it includes all problems in sociology, cannot fail to contain much of direct interest to those who make use of the Bulletin. A great deal can be learned from such papers as Miss Rosalie Loew's "Lawyer's Work Among the Poor," Dr. Grace Peckham Murray's "Health Fads of To-Day," George R. Stetson's "The Racial Problem," Z. R. Brockway's "The Best Treatment of Criminals, whether Felons or Misdemeanants," not to mention the other excellent papers.

**THE DOCTOR'S WIFE.** A tribute to wifehood. Being an after-dinner speech originally delivered before a general audience at the annual banquet of the College of Physicians and Surgeons (of Chicago), April, 1899. Published to please a few friends who heard it and in the hope of pleasing a few others. BY DR. WILLIAM E. QUINE.

Dr. Quine did well to listen to the request of his friends, and if all who have been favored with a copy of the booklet have had as much pleasure in reading it as the writer of this notice, the author's hopes are largely realized.

### MEDICAL SOCIETY TRANSACTIONS.

- I. TRANSACTIONS OF THE MEDICAL SOCIETY OF NEW JERSEY. 1901. pp. 363.
- II. TRANSACTIONS OF THE STATE MEDICAL SOCIETY OF WISCONSIN FOR THE YEAR 1901. pp. 516.

I. Two reports of all the excellent contents of this volume should be noted by the BULLETIN: that of the Committee on Medical Inspection of Schools, and of the Committee on Abuse of Medical Charity.

There is a law in New Jersey providing for medical inspection in the various school districts, and the duty of this committee is to report upon its observance. The report is one of progress. The subject itself is worthy of investigation by those interested in educational topics. The other committee suggests legislative enactment as the only way to correct the abuse.

II. This report shows the usual excellent meeting of the Wisconsin Society, apart from any merit the papers possess, and they will not suffer by comparison. Indeed how could there be other than a delightful meeting where Sheldon is secretary. The only paper, sociologic in character, is the address in medicine on "Disease and Sin," by Dr. George M. Gould, of Philadelphia.

Jonathan Hutchinson, F.R.S., general secretary of the New Sydenham Society, announces the publication of "An Atlas of Clinical Medicine, Surgery and Pathology," selected and arranged with the design to afford, in as complete a manner as possible, aids to diagnosis in all departments of practice. It is proposed to complete the work in five years, in fasciculi form, eight to ten plates issued every three months in connection with the regular publications of the Society. The new Sydenham Society was established in 1858, with the object of publishing essays, monographs and translations of works which could not be otherwise issued. The list of publications numbers upwards of 170 volumes of the greatest scientific value. An effort is now being made to increase the membership in order to extend its work. P. Blakiston's Son & Co., Philadelphia, are the American agents of the Society, to whom subscriptions may be sent.

P. Blakiston's Son & Co. announce, as in the press and nearly ready, Dr. J. C. DaCosta's treatise on "Clinical Pathology." The few specimen pages sent to us give an earnest of a valuable contribution to this branch of medicine.

#### REPORTS OF STATE BOARDS OF HEALTH.

- I. BIENNIAL REPORT OF THE STATE BOARD OF HEALTH OF KENTUCKY, with laws, rules and regulations. 1898-1899. pp. 193.
- II. SIXTEENTH ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF KANSAS, from January 1 to December 31, 1900. pp. 181.
- III. TWENTY-THIRD ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF THE STATE OF CONNECTICUT, for the year 1900. pp. xxvi, 367, 196.
- IV. THIRTY-SECOND ANNUAL REPORT OF THE STATE BOARD OF HEALTH OF MASSACHUSETTS. Boston, 1901. pp. liv, 891.

I The Kentucky board has dual functions. It supervises the medical profession as well as the sanitary condition of the state. If it is as effective in the latter duty as it is in the former, Kentucky is to be congratulated, although she does not deserve such excellent service as the report shows, but \$2,500 are annually appropriated for its use.

III. This report contains a valuable paper on "Educating the Public in Practical Hygiene," and a list of physicians who have registered in the state since the last report, in addition to valuable contributions on sanitary science.

IV. The reports of the Massachusetts board are among the most valuable received at this office, and this volume only comprises this opinion. While the report confines itself to the sanitation of Massachusetts, its methods of investigation make the results of universal application.

#### ADVERTISING AMENITIES.

Schering and Glatz, of New York, have issued a cabinet size photograph of Prof. Virchow which will be prized by all recipients.

The M. J. Breitenbach Company, of the same city, continue the publishing of the "Daily Memorandum" for desk use, in the now familiar red cloth binding; and the Einer and Mendelson Co., likewise of the Borough of Manhattan, their little pocket diary for 1902.

W. H. Hostelly & Co. have issued their usual neat calendar.

# BULLETIN

OF THE

## American Academy of Medicine

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VOL. V.

ISSUED APRIL, 1902.

NO. II.

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THE AMERICAN ACADEMY OF MEDICINE is not responsible for the sentiments expressed in any paper or address published in the BULLETIN.

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### HANDBOOK OF THE AMERICAN ACADEMY OF MEDICINE. 1901-1902.

#### INTRODUCTION.

The information furnished in the handbook concerning the Fellows of the American Academy of Medicine attempts to be accurate, and fails only because of the lack of cooperation on the part of those fellows who have not responded to the requests made in various circulars. If errors, either of omission or commission are brought to the attention of the secretary, the correction will be noted for the next edition of the handbook.

#### HISTORY OF THE ACADEMY.

- The American Academy of Medicine was organized in Philadelphia, September 6, 1876. Primarily, as a society of protest against the lax methods pertaining to medical legislation at the time. Through the wisdom of those who guided its affairs at the beginning, it refrained from entering the general field of medicine in its discussions, and thus developed into its present function, the investigation and discussion of the various problems of medical sociology.

In order to be able to criticize any method of medical education, it limited its membership to those who had the A.B. degree, or to those able to submit evidence of a fairly equivalent degree of general culture, which qualification it still maintains. Apart from this essential to membership, it is, practically, a national

medical society, specializing on social medicine, as do the ophthalmological, neurological, and surgical societies, on their respective specialties.

#### PLACES AND TIMES OF MEETINGS.

1. 1876.—September 6, Philadelphia.
2. 1877.—September 11, 12, New York.
3. 1878.—September 17, 18, Easton, Pa.
4. 1879.—September 16, 17, New York.
5. 1880.—September 28, 29, Providence, R. I.
6. 1881.—September 20, 21, New York.
7. 1882.—October 26, 27, Philadelphia.
8. 1883.—October 9, 10, New York.
9. 1884.—October 28, 29, Baltimore.
10. 1885.—October 28, 29, New York.
11. 1886.—October 12, 13, Pittsburg.
12. 1887.—September 3, Washington.
13. 1888.—November 13, 14, New York.
14. 1889.—November 13, 14, Chicago.
15. 1890.—December 2, 3, Philadelphia.
16. 1891.—May 2, 4, Washington.
17. 1892.—June 4, 6, Detroit.
18. 1893.—June 3, 5, Milwaukee, Wis.
19. 1894.—August 29, 30, Jefferson, N. H.
20. 1895.—May 4, 6, Baltimore.
21. 1896.—May 2, 4, Atlanta.
22. 1897.—May 29, 31, Philadelphia.
23. 1898.—June 4, 6, Denver.
24. 1899.—June 3, 5, Columbus, O.
25. 1900.—June 2, 4, Atlantic City, N. J.
26. 1901.—June 1, 3, St. Paul, Minn.
27. 1902.—June 7, 9, Saratoga Springs, N. Y.

#### PRESIDENTS.

|      |                           |               |
|------|---------------------------|---------------|
| 1876 | *Traill Green .....       | Easton, Pa.   |
| 1877 | *Traill Green .....       | Easton, Pa.   |
| 1878 | *Frank H. Hamilton .....  | New York.     |
| 1879 | *Lewis H. Steiner .....   | Baltimore.    |
| 1880 | *F. D. Lente .....        | New York.     |
| 1881 | *E. T. Caswell .....      | Providence.   |
| 1882 | *Traill Green .....       | Easton, Pa.   |
| 1883 | Henry O. Marcy .....      | Boston.       |
| 1884 | Benjamin Lee .....        | Philadelphia. |
| 1885 | *Albert L. Gihon .....    | U. S. N.      |
| 1886 | R. Stansbury Sutton ..... | Pittsburg.    |

\* Deceased.



|      |                          |                  |
|------|--------------------------|------------------|
| 1887 | *L. P. Bush.....         | Wilmington, Del. |
| 1888 | F. H. Gerrish .....      | Portland, Me.    |
| 1889 | Leartus Connor.....      | Detroit.         |
| 1890 | *S. J. Jones .....       | Chicago.         |
| 1891 | *Theophilus Parvin.....  | Philadelphia.    |
| 1892 | P. S. Conner .....       | Cincinnati.      |
| 1893 | J. E. Emerson.....       | Detroit.         |
| 1894 | George M. Gould.....     | Philadelphia.    |
| 1895 | J. McFadden Gaston ..... | Atlanta.         |
| 1896 | Henry M. Hurd.....       | Baltimore.       |
| 1897 | J. C. Wilson .....       | Philadelphia.    |
| 1898 | L. Duncan Bulkley .....  | New York.        |
| 1899 | Edward Jackson.....      | Denver.          |
| 1900 | G. Hudson-Makuen .....   | Philadelphia.    |
| 1901 | S. D. Risley .....       | Philadelphia.    |
| 1902 | V. C. Vaughan.....       | Ann Arbor, Mich. |

## VICE-PRESIDENTS.

|      |                          |                     |
|------|--------------------------|---------------------|
| 1876 | None.                    |                     |
| 1877 | *Lewis H. Steiner.....   | Baltimore.          |
|      | *George H. Larison.....  | Lambertville, N. J. |
|      | E. H. M. Sell .....      | New York.           |
|      | William S. Stewart.....  | Philadelphia.       |
| 1878 | *Lewis H. Steiner. ....  | Baltimore.          |
|      | *Stephen Wickes.....     | Orange, N. J.       |
|      | Benjamin Lee.....        | Philadelphia.       |
|      | Henry G. Piffard .....   | New York.           |
| 1879 | *R. L. Sibbet .....      | Carlisle, Pa.       |
|      | E. H. M. Sell .....      | New York.           |
|      | *G. H. Larison .....     | Lambertville, N. J. |
|      | R. Stansbury Sutton..... | Pittsburg.          |
| 1880 | *Thomas Ryerson .....    | Newton, N. J.       |
|      | *P. D. Keyser.....       | Philadelphia.       |
|      | N. A. Baldwin.....       | Brooklyn.           |
|      | *G. M. Beard .....       | New York.           |
| 1881 | H. O. Marcy.....         | Boston.             |
|      | *W. T. Taylor.....       | Philadelphia.       |
|      | *Howard Pinkney.....     | New York.           |
|      | Horace Lathrop.....      | Cooperstown, N. Y.  |
| 1882 | *Louis Elsberg .....     | New York.           |
|      | *J. D. Strabridge .....  | Danville, Pa.       |
|      | *C. C. Lee.....          | New York.           |
|      | C. C. Bombaugh .....     | Baltimore.          |
| 1883 | *G. M. Beard .....       | New York.           |
|      | William Elmer .....      | Trenton.            |

\* Deceased.

- \*C. R. Agnew ..... New York.  
 T. M. Drysdale ..... Philadelphia.
- 1884 \*A. L. Gihon ..... U. S. N.  
 \*Nathan Allen ..... Lowell, Mass.  
 G. F. Shrady ..... New York.  
 E. J. Bermingham ..... New York.
- 1885 R. Stansbury Sutton ..... Pittsburg.  
 J. A. Stewart ..... Baltimore.  
 William Elmer ..... Trenton.  
 J. Cheston Morris ..... Philadelphia.
- 1886 \*L. P. Bush ..... Wilmington, Del.  
 \*S. J. Jones ..... Chicago.  
 \*R. L. Sibbet ..... Carlisle, Pa.  
 F. H. Gerriah ..... Portland, Me.
- 1887 \*R. L. Sibbet ..... Carlisle, Pa.  
 \*S. J. Jones ..... Chicago.  
 P. S. Conner ..... Cincinnati.  
 V. P. Gibney ..... New York.
- 1888 W. B. Atkinson ..... Philadelphia.  
 \*J. H. Baxter ..... U. S. A.  
 \*T. J. Turner ..... U. S. N.  
 \*J. B. Lindale ..... Nashville.
- 1889 \*P. D. Keyser ..... Philadelphia.  
 L. D. Bulkley ..... New York.  
 \*Theophilus Parvin ..... Philadelphia.  
 \*G. J. Fisher ..... Sing Sing, N. Y.
- 1890 J. E. Emerson ..... Detroit.  
 E. Hitchcock, Jr. .... Ithaca.  
 J. Cheston Morris ..... Philadelphia.  
 Alonzo Garcelon ..... Lewiston, Me.
- 1891 H. M. Hurd ..... Baltimore.  
 Alonzo Garcelon ..... Lewiston, Me.  
 \*R. L. Sibbet ..... Carlisle, Pa.  
 \*R. J. Dunglison ..... Philadelphia.
- 1892 \*R. L. Sibbet ..... Carlisle, Pa.  
 \*G. J. Fisher ..... Sing Sing, N. Y.  
 H. M. Lyman ..... Chicago.  
 L. S. McMurtry ..... Louisville.
- 1893 T. F. Moses ..... Waltham, Mass.  
 Charles Denison ..... Denver.  
 S. D. Presbrey ..... Taunton, Mass.  
 H. D. Allyn ..... Philadelphia.
- 1894 C. C. Bombaugh ..... Baltimore.  
 J. McFadden Gaston ..... Atlanta.  
 S. W. French ..... Milwaukee.

\* Deceased.

|      |                          |                      |
|------|--------------------------|----------------------|
|      | C. W. Foster .....       | Woodfords, Me.       |
| 1895 | *R. P. Lincoln .....     | New York.            |
|      | W. T. Smith .....        | Hanover, N. H.       |
|      | Helen C. Putnam .....    | Providence.          |
|      | V. C. Vaughan .....      | Ann Arbor.           |
| 1896 | Woods Hutchinson .....   | Buffalo.             |
|      | J. B. Roberts .....      | Philadelphia.        |
|      | Emma B. Culbertson ..... | Boston.              |
|      | W. F. Southard .....     | San Francisco.       |
| 1897 | J. T. Searcy .....       | Tuscaloosa, Ala.     |
|      | Elmer Lee .....          | New York.            |
|      | Everett Flood .....      | Palmer, Mass.        |
|      | J. W. Grosvenor .....    | Buffalo.             |
| 1898 | J. B. Roberts .....      | Philadelphia.        |
|      | V. Y. Bowditch .....     | Boston.              |
|      | Charles Denison .....    | Denver.              |
|      | F. T. Rogers .....       | Providence.          |
| 1899 | W. L. Estes .....        | South Bethlehem, Pa. |
|      | J. T. Searcy .....       | Tuscaloosa, Ala.     |
|      | William Elmer .....      | Trenton.             |
|      | R. H. Babcock .....      | Chicago.             |
| 1900 | C. G. Plummer .....      | Salt Lake City.      |
|      | A. Goldspohn .....       | Chicago.             |
|      | E. F. Wilson .....       | Columbus, O.         |
|      | A. L. Benedict .....     | Buffalo.             |
| 1901 | C. M. Culver .....       | Albany, N. Y.        |
|      | Rosa Englemann .....     | Chicago.             |
|      | G. G. Groff .....        | Lewisburg, Pa.       |
|      | C. T. McClintock .....   | Detroit.             |
| 1902 | J. L. Taylor .....       | Wheelersburg, O.     |
|      | W. A. N. Dorland .....   | Philadelphia.        |
|      | H. P. Ritchie .....      | St. Paul, Minn.      |
|      | H. Bert Ellis .....      | Los Angeles.         |

## SECRETARIES.

|           |                        |               |
|-----------|------------------------|---------------|
| 1876      | *Peter D. Keyser ..... | Philadelphia. |
| 1877-1878 | *R. Lowry Sibbet ..... | Carlisle, Pa. |
| 1879-1890 | *R. J. Duglison .....  | Philadelphia. |
| 1891-     | Charles McIntire ..... | Easton, Pa.   |

## TREASURERS.

|           |                        |               |
|-----------|------------------------|---------------|
| 1876      | None.                  |               |
| 1877      | *R. Lowry Sibbet ..... | Carlisle, Pa. |
| 1878      | E. H. M. Sell .....    | New York.     |
| 1879      | N. A. Baldwin .....    | Brooklyn.     |
| 1880-1890 | *R. J. Duglison .....  | Philadelphia. |

\* Deceased.

|           |                        |               |
|-----------|------------------------|---------------|
| 1891-1893 | J. Cheston Morris..... | Philadelphia. |
| 1894-     | Chas. McIntire .....   | Easton, Pa.   |

#### ASSISTANT SECRETARIES.

|           |                      |               |
|-----------|----------------------|---------------|
| 1876      | None.                |               |
| 1877      | None.                |               |
| 1878      | N. A. Baldwin.....   | Brooklyn.     |
| 1879-1890 | Chas. McIntire ..... | Easton, Pa.   |
| 1891-1897 | E. M. Green.....     | Easton, Pa.   |
| 1898-1900 | Walter L. Pyle ..... | Philadelphia. |
| 1901-     | A. R. Craig .....    | Columbia, Pa. |

#### APPOINTED MEMBERS OF THE COUNCIL.

|      |                        |                        |
|------|------------------------|------------------------|
| 1876 | None.                  |                        |
| 1877 | None.                  |                        |
| 1878 | *P. D. Keyser.....     | Philadelphia.          |
| 1879 | *P. D. Keyser .....    | Philadelphia.          |
|      | G. F. Shradly.....     | New York.              |
| 1880 | E. J. Bermingham.....  | New York.              |
|      | *Louis Elsberg .....   | New York.              |
| 1881 | *P. D. Keyser.....     | Philadelphia.          |
| 1882 | *Wm. Govan .....       | Stony Point, N. Y.     |
|      | *G. H. Larison .....   | Lambertville, N. J.    |
| 1883 | Benjamin Lee.....      | Philadelphia.          |
|      | L. D. Bulkley .....    | New York.              |
| 1884 | C. C. Bombaugh .....   | Baltimore.             |
|      | William Elmer, .....   | Trenton, N. J.         |
|      | J. Cheston Morris..... | Philadelphia.          |
| 1885 | L. D. Bulkley .....    | New York.              |
|      | E. H. M. Sell .....    | New York.              |
| 1886 | *G. D. Bruce.....      | Pittsburg.             |
|      | J. Tabor Johnson.....  | Washington, D. C.      |
| 1887 | *J. L. Cabell.....     | Univ. of Virginia, Va. |
|      | *N. S. Lincoln.....    | Washington, D. C.      |
| 1888 | L. D. Bulkley .....    | New York.              |
|      | *R. L. Sibbet .....    | Carlisle, Pa.          |
| 1889 | *H. A. Johnson .....   | Chicago, Ill.          |
|      | G. H. Hill.....        | Independence, Ia.      |
|      | J. E. Emerson .....    | Detroit.               |
| 1890 | *H. A. Johnson .....   | Chicago.               |
|      | G. H. Hill.....        | Independence, Ia.      |
| 1891 | J. E. Emerson .....    | Detroit.               |
|      | J. Tabor Johnson ..... | Washington, D. C.      |
| 1892 | *R. J. Dunglison ..... | Philadelphia.          |
|      | *C. P. Frost .....     | Hanover, N. H.         |
|      | *J. T. Whittaker ..... | Cincinnati, O.         |

\* Deceased.

|      |                          |                      |
|------|--------------------------|----------------------|
| 1893 | C. W. Hitchcock .....    | Detroit.             |
|      | *R. L. Sibbet .....      | Carlisle, Pa.        |
|      | C. S. Sheldon .....      | Madison, Wis.        |
| 1894 | Bayard Holmes .....      | Chicago.             |
|      | W. T. Smith .....        | Hanover, N. H.       |
| 1895 | C. C. Bombaugh .....     | Baltimore.           |
| 1896 | C. C. Bombaugh .....     | Baltimore.           |
|      | J. R. Shannon .....      | Cabaniss, Ga.        |
|      | W. H. Doughty, Jr .....  | Augusta, Ga.         |
| 1897 | V. Y. Bowditch .....     | Boston.              |
|      | *J. T. Whittaker .....   | Cincinnati.          |
| 1898 | S. A. Fisk .....         | Denver.              |
|      | J. N. Hall .....         | Denver.              |
|      | Edward Jackson .....     | Denver.              |
|      | W. L. Estes .....        | So. Bethlehem, Pa.   |
|      | E. M. Green .....        | Easton, Pa.          |
| 1899 | H. Bert Ellis .....      | Los Angeles.         |
|      | W. J. Herdman .....      | Ann Arbor, Mich.     |
|      | R. A. Reeve .....        | Toronto, Canada.     |
| 1900 | *J. H. W. Chestnut ..... | Philadelphia.        |
|      | H. W. Elmer .....        | Bridgeton, N. J.     |
|      | H. F. Hansell .....      | Philadelphia.        |
| 1901 | E. O. Otis .....         | Boston.              |
|      | J. L. Rothrock .....     | St. Paul, Minn.      |
|      | C. S. Sheldon .....      | Madison, Wis.        |
|      | E. F. Wilson .....       | Columbus, O.         |
|      | W. Blair Stewart .....   | Atlantic City, N. J. |
| 1902 | C. M. Culver .....       | Albany.              |
|      | T. D. Davis .....        | Pittsburg.           |
|      | J. T. Searcy .....       | Tuscaloosa, Ala.     |

## HONORARY MEMBERS.

(Limited to five to every one hundred Fellows.)

| Date of election. | Name.                             | Residence.        |
|-------------------|-----------------------------------|-------------------|
| 1879              | *Agnew, D. Hayes (*1892) .....    | Philadelphia, Pa. |
| 1896              | Babcock, J. W. ....               | Columbia, S. C.   |
| 1882              | *Campbell, Henry F. (*1891) ..... | Augusta, Ga.      |
| 1888              | Championiere, Lucas J. ....       | Paris, France.    |
| 1886              | Davis, N. S. ....                 | Chicago, Ill.     |
| 1888              | Didama, Henry D. ....             | Syracuse, N. Y.   |
| 1882              | *Flint, Austin (*1886) .....      | New York, N. Y.   |
| 1897              | Flint, Austin, Jr. ....           | New York, N. Y.   |
| 1889              | Grant, Sir James Alexander .....  | Ottawa, Canada.   |
| 1879              | *Gross, Samuel D. (*1884) .....   | Philadelphia, Pa. |

\* Deceased.

|      |                                       |                                        |
|------|---------------------------------------|----------------------------------------|
| 1887 | *Hewitt, W. M. Graily (*1893).....    | London, England.                       |
| 1884 | *Holmes, Oliver Wendell (*1894) ..... | Boston, Mass.                          |
| 1889 | Jordan, David Starr.....              | Leland Stanford, Jr., University, Cal. |
| 1887 | *Le Fort, Leon (*1893).....           | Paris, France.                         |
| 1888 | Lord Lister .....                     | London, England.                       |
| 1887 | Martin, August.....                   | Berlin, Germany.                       |
| 1890 | *Millard, Perry H. (*1897).....       | St. Paul, Minn.                        |
| 1885 | Mitchell, S. Wier.....                | Philadelphia, Pa.                      |
| 1887 | Mooren, Albert .....                  | Düsseldorf, Germany.                   |
| 1901 | Nettlehip, E.....                     | Nutcombe Hill, England.                |
| 1895 | Oaler, William .....                  | Baltimore, Md.                         |
| 1895 | Park, Roswell.....                    | Buffalo, N. Y.                         |
| 1896 | Peterson, Frederick C.....            | New York, N. Y.                        |
| 1887 | Philips, Chas. D. F.....              | London, England.                       |
| 1896 | Potter, Wm. Warren.....               | Buffalo, N. Y.                         |
| 1897 | Ransahoff, Joseph .....               | Cincinnati, O.                         |
| 1888 | *Rauch, John H. (*1893).....          | Chicago, Ill.                          |
| 1887 | *Semmola, M. (*1896).....             | Naples, Italy.                         |
| 1883 | *Sims, J. Marion (*1883).....         | New York, N. Y.                        |
| 1885 | *Smith, Henry H.....                  | Philadelphia, Pa.                      |
| 1884 | Sternberg, Geo. M.....                | Surgeon-General, U. S. A.              |
| 1895 | Stockton, C. G.....                   | Buffalo, N. Y.                         |
| 1887 | Unna, P. G.....                       | Hamburg, Germany.                      |
| 1901 | Virchow, Rudolph .....                | Berlin, Germany.                       |
| 1888 | *Wells, Sir T. Spencer (*1897) .....  | London, England.                       |

| Date of<br>elec-<br>tion. | Name.                        | P. O. Address.                                                                                                                                                     |
|---------------------------|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1882                      | Abbot, Griffith E            | 13½ and Pennsylvania Ave., Washington D. C.<br>A.B. Univ. of Penna. 1871; Ph.D. Jena 1875; M.D. Univ. of Penna. 1879.                                              |
| 1885                      | Acker, Geo. N                | - - - 913 16th, Washington, D. C.<br>A.B. Penna. Coll. 1872; M.D. National Med. Coll. 1874.<br>Prof. Pediatrics and Clinical Medicine Med. School, Columbian Univ. |
| 1883                      | Adam, Z. B                   | - - - Framingham, Mass.<br>A.B. Bowdoin 1849; M.D. Harvard 1853.                                                                                                   |
| 1880                      | *Agnew, Cornelius R. (*1888) | - - - New York, N. Y.<br>Vice-president, 1882.                                                                                                                     |
| 1892                      | Alden, Chas. H               | - - - U. S. A.<br>M.D. Penna. Med. Coll. 1858.<br>Colonel and Assistant Surgeon-General U. S. A.                                                                   |
| 1893                      | Alderson, M. E               | - - - Russellville, Ky.<br>A.B. Bethel (Ky.) 1871; M.D. Starling Med. Coll. 1878.                                                                                  |
| 1897                      | Alleman, H. M                | - - - Hanover, Pa.<br>A.B. Lafayette 1885; M.D. Univ. of Penna. 1888.                                                                                              |
| 1894                      | Allemann, L. A. W            | - - - 64 Montague, Brooklyn, N. Y.<br>A.B. Hobart 1883; M.D. Jefferson Med. Coll. 1886.                                                                            |

\* Deceased.

- 1881 \*Allen, Chas. L. - - - - Rutland, Vt.  
 1880 \*Allen, Nathan (\*1889) - - - - Lowell, Mass.  
 Vice-president, 1883.  
 1878 \*Allen, Wm. H. - - - - Philadelphia, Pa.  
 1885 \*Alleyne, J. S. B. (\*1895) - - - - St. Louis, Mo.  
 1892 Allyn, G. W. - - - - 432 Penn, Pittsburg, Pa.  
 A.B. Univ. of Mich. 1872; M.D. Ibid. 1878.  
 1888 Allyn, H. B. - - - - 501 S. 42nd, Philadelphia, Pa.  
 A.B. Univ. of Penna., 1882; M.D. Ibid. 1885.  
 Vice-president, 1892.  
 Instructor Physical Diagnosis Univ. of Pa.; Physician St. Joseph's Hos-  
 pital; Med. Registrar Phila. Hospital.  
 1890 Alt, Adolph - - - - 3036 Locust, St. Louis, Mo.  
 M.D. Univ. of Heidelberg 1875.  
 1899 Amberg, S. - - - - 1304 Madison, Baltimore, Md.  
 M.D. Univ. of Heidelberg 1898.  
 1880 Amory, Robert - - - - 279 Beacon, Boston, Mass.  
 A.B. Harvard 1863; M.D. Ibid. 1866.  
 1879 Andrew, Geo. L. - - - - 6123 Sheridan, Chicago, Ill.  
 A.B. Miami 1841; M.D. Ohio Med. Coll. 1845; A.M. Miami 1846.  
 1884 Andrews, Edmund - - - - 65 Randolph, Chicago, Ill.  
 A.B. Univ. of Mich. 1849; M.D. Ibid. 1852; L.L.D. Ibid. 1880.  
 Prof. Clin. Surgery, Med. Sch., Northwestern Univ.  
 1884 Andrews, Edward W. - - - - 65 Randolph, Chicago, Ill.  
 A.B. Northwestern Univ. 1878; M.D. Chicago Med. Coll. 1881.  
 Prof. Clin. Surgery Med. Sch., Northwestern Univ.  
 1887 Andrews, F. T. - - - - 65 Randolph, Chicago, Ill.  
 A.B. Northwestern Univ. 1881; M.D. Chicago Med. Coll. 1884.  
 Prof. Clin. Gynecology, Med. Sch., Northwestern Univ.  
 1892 Angle, E. J. - - - - 1400 O, Lincoln, Nebraska.  
 B.S. Univ. of Wisconsin 1885; M.D. Med. Coll. of O. 1887.  
 1879 Appleby, James F. R. - - - - 1430 33rd, N. W., Washington, D. C.  
 A.B. Lafayette 1864; M.D. Georgetown Univ. 1868; A.M. Lafayette 1879.  
 1879 Asch, Morris J. - - - - 5 W. 30th, New York, N. Y.  
 A.B. Univ. of Penna. 1852, A.M. 1855; M.D. Jefferson Med. Coll. 1855.  
 1900 Aschman, G. A. - - - - Wheeling, W. Va.  
 B.S. Univ. of Geneva 1881; M.D. Univ. of Zurich 1884.  
 1877 Atkinson, W. B. - - - - 1400 Pine, Philadelphia, Pa.  
 A.B. Central High School, Phila., 1850; M.D. Jefferson Med. Coll. 1853;  
 A.M. Central High School, Phila., 1855.  
 Vice-president, 1897.  
 Honorary Prof. Sanitary Science and Pediatrics Medico-Chirurgical Coll.  
 1898 Atwater, J. B. - - - - Westfield, Mass.  
 A.B. Williams 1879; M.D. Univ. City of N. Y. 1882.  
 1896 Babcock, Robert H. - - - - 103 State, Chicago, Ill.  
 M.D. Chicago Med. Coll. 1878; M.D. Columbia 1879; A.M. Adelbert 1888;  
 A.B. Ibid. 1895.  
 Vice-President, 1898.  
 Prof. Clin. Med. and Diseases of the Chest Coll. of P. & S.

\* Deceased.

- 1898 Bagot, W. S - - - Stedman Block, Denver, Colo.  
A.B. Univ. of Dublin 1886; M.D. School of Physics Univ. of Dublin, 1891.  
Clin. Prof. Gynecology School of Med., Univ. of Denver.
- 1901 Baker, Albert R - 604 New England Bldg., Cleveland, O.  
M.D. Western Reserve Univ. 1879.
- 1888 Baker, C. A - - - - 312 Congress, Portland, Pa.  
A.B. Bowdoin 1878; M.D. Ibid. 1882.
- 1890 Baker, Geo. Fales - - - 1818 Spruce, Philadelphia, Pa.  
B.S. Univ. of Penna. 1884; M.D. Ibid. 1887.
- 1891 \*Baldwin, Henry R. (\*1902) - - New Brunswick, N. J.
- 1877 Baldwin, N. A - - - - 21 3rd, Brooklyn, N. Y.  
A.B. Lafayette 1858; A.M. Ibid. 1861; M.D. Yale 1861.  
Assistant Secretary, 1877; Treasurer, 1878; Vice-President, 1879.
- 1895 Balloch, Edward A - 1013 15th, N. W., Washington, D. C.  
A.B. Princeton 1877; M.D. Harvard 1879.
- 1892 Bannister, Henry M - - 828 Judson Ave., Evanston, Ill.  
B.S. Northwestern Univ. 1863; M.D. Columbian Univ. 1871.
- 1894 Bardwell, E. O - - - - Emporium, Pa.  
Ph.B. Illinois Wesleyan Univ. 1893; M.D. Univ. of Buffalo 1879.
- 1898 Barlow, Walter J - - 328 Wilcox Block, Los Angeles, Cal.  
A.B. Columbia 1889; M.D. Ibid. 1892.  
Prof. Physical Diagnosis Univ. S. California.
- 1883 Barnum, Eugene E - - - Lancaster, C. H., Va.  
A.B. Williams 1878; M.D. Univ. of Buffalo 1881.
- 1897 Barreto, O. de Mello - - - Sao Paulo, Brazil.  
M.D. Capital Federal Univ. Rio Janiero 1886.
- 1896 Bartholow, Paul - - 1525 Locust, Philadelphia, Pa.  
A.B. Harvard 1889; M.D. Jefferson Med. Coll. 1892.
- 1882 Barton, James M - - 1337 Spruce, Philadelphia, Pa.  
A.B. Central High School, Phila., 1865; M.D. Jefferson Med. Coll. 1868.  
Surgeon Jefferson Med. Coll. and Philadelphia Hospital.
- 1889 Bates, Joseph H - - - - Neponset, Ill.  
A.B. Northwestern Univ. 1875; M.D. Chicago Med. Coll. 1881.
- 1883 \*Baxter, J. W. (\*1890) - - - U. S. A.
- 1897 Beach, Wm. M - - 954 W. North Ave., Allegheny, Pa.  
A.B. Waynesburg Coll. (Penna.) 1882; M.D. Jefferson Med. Coll. 1889.  
Secretary American Proctological Society.
- 1878 \*Beard, Geo. M - - - - New York, N. Y.  
Vice-president, 1879, 1882.
- 1882 Beck, Richard H - - - - Hecktown, Pa.  
A.B. Muhlenberg 1871; M.D. Univ. of Penna. 1874.
- 1889 Beebe, Warren L - - - St. Cloud, Minn.  
A.B. Marietta Coll. 1870; M.D. Bellevue Hosp. Med. Coll. 1876.
- 1891 Behrens, Bernt M - 375 Syndicate Block, Minneapolis, Minn.  
A.B. Univ. of Christiana 1868; M.D. Ibid. 1875.
- 1889 Bell, Finis E - - - - Mattoon, Ill.  
A.B. Lincoln Univ. of Illinois 1872; M.D., Medical Coll. of Ohio, 1880.
- 1891 Bemus, Morris N - - 303 N. 2nd, Jamestown, N. Y.  
A.B. Rutgers 1885; M.D. Columbia (P. & S.) 1888.

\* Deceased.



- 1897 Benedict, A. L. - - 156 W. Chippewa, Buffalo, N. Y.  
A.B. Univ. of Michigan 1887; M.D. Univ. of Buffalo 1888.  
Vice-president, 1899.  
Prof. of Physiology and Digestive Diseases Dental Dept., Univ. of Buffalo; Consulting Phys. City Hosp. for Women.
- 1877 \*Benham, S. W. - - - - - Pittsburg, Pa.  
1879 \*Bennett, Wm. C. - - - - - Danbury, Conn.  
1878 Bermingham, Edward J. - - 75 W. 45th, New York, N. Y.  
M.D. Coll. P. & S. N. Y. (Columbia) 1873; A.M. Univ. of the City of N. Y. 1878.  
Member of Council, 1875; Vice-President, 1883.
- 1890 \*Bidwell, Walter D. (\*1896) - - Colorado Springs, Colo.  
1897 Bieser, Augustus E. - - 256 W. 54th, New York, N. Y.  
A.B. Coll. City of N. Y. 1888; M.D. Columbia 1891.
- 1889 \*Bigelow, Geo. F. (\*1893) - - - - Boston, Mass.  
1892 Biggs, Herman M. - - - 5 W. 58th, New York, N. Y.  
A.B. Cornell 1882; M.D. Bellevue Hospital Med. Coll. 1883.  
Prof. Therapeutics and Clin. Med. Univ. and Bellevue Hospital Med. Coll.
- 1877 Billings, John S. - - - 32 E. 31st, New York, N. Y.  
A.B. Miami 1853; A.M. Ibid. 1860; M.D. Med. Coll. of O. 1860.  
Lieut.-Col. U. S. A., retired.  
Director of New York Public Library.
- 1897 Birney, David B. - - 1810 DeLancey Pl., Philadelphia, Pa.  
A.B. Univ. of Penna. 1882; M.D. Ibid. 1885; LL.D. Griswold 1894.
- 1884 Bishop, Rufus W. - - - 70 State, Chicago, Ill.  
A.B. Univ. of Vermont 1877; M.D. Univ. of Berlin (Prussia) 1882.
- 1893 Blackader, A. D. - - - 236 Mountain, Montreal, Canada.  
A.B. McGill 1870; M.D. Ibid. 1871.
- 1892 \*Blake, Chas. E. (\*1894) - - - San Francisco, Cal.  
1899 Blake, Francis W. - - - 187 E. State, Columbus, O.  
A.B. Kenyon 1880; M.D. Columbus Med. Coll. 1883.
- 1889 Boise, Eugene - - - 2 Ottawa, Grand Rapids, Mich.  
A.B. Oberlin 1867; M.D. Univ. of Mich. 1869; M.D. Columbia (P. & S.) 1870.
- 1879 Bombaugh, Chas. C. - - 856 Park Ave., Baltimore, Md.  
A.B. Harvard 1850; M.D. Jefferson Med. Coll. 1853; A.M. Harvard 1855.  
Vice-president, 1881, 1893; Member of Council, 1883, 1894, 1895.
- 1898 Bonney, Sherman G. - - - 726 14th, Denver, Colo.  
A.B. Bates 1886; M.D. Harvard 1889.  
Prof. Medicine School of Medicine, Univ. of Denver.
- 1890 Boone, Sherman W. - - - Presque Isle, Me.  
A.B. Univ. of New Brunswick 1883; M.D. McGill 1887.
- 1889 Boothby, James M. - - - Dubuque, Ia.  
A.B. Bowdoin 1873; M.D. Detroit Coll. of Med. 1876.
- 1881 \*Borland, Matthew H. - - - - Pittsburg, Pa.  
1894 Bourne, Geo. W. - - - - Kennebunk, Me.  
A.B. Bowdoin 1879; M.D. Jefferson Med. Coll. 1882.
- 1879 \*Bowditch, Henry I. (\*1892) - - - Boston, Mass.  
1882 Bowditch, Vincent Y. - - 506 Beacon, Boston, Mass.  
A.B. Harvard 1875; M.D. Ibid. 1879.  
Member of Council 1896; Vice-president 1897.  
Instructor Clin. Med. Med. School of Harv. Univ.

\* Deceased.

- 1892 Bradford, E. F - - - 24 Elm, Mechanic Falls, Me.  
A.B. Tufts 1867; M.D. Harvard 1869.
- 1889 Bradford, Thos. B - - - 828 Washington, Wilmington, Del.  
A.B. Princeton 1881; M.D. Univ. of Penna. 1884.
- 1894 Bradford, Wm. H - - - 365 Congress, Portland, Me.  
A.B. Bowdoin 1888; M.D. Ibid. 1891.  
Adj. Surgeon Me. Gen. Hospital.
- 1900 Brainerd, H. G - - - 315 W. 6th, Los Angeles, Cal.  
A.B. Dartmouth 1874; M.D. Rush Med. Coll. 1878.
- 1889 Braisted, Wm. C - - - - - U. S. N.  
Ph.B. Univ. of Mich. 1883; M.D. Columbia 1886.  
Passed Assistant Surgeon U. S. N.
- 1891 Brasseur, John B - - - Stephenson, Mich.  
A.B. Seminar Provincial de Florette 1880; M.D. Univ. de l'Etat a Liege 1888.
- 1901 Bray, Chas. W - - - - - Biwabik, Minn.  
A.B. Univ. of Minnesota 1891; M.D. Ibid. 1895.
- 1894 \*Braymer, Orange W. (\*1898) - - - Camden, N. J.
- 1884 Brekes, David - - - 319 E. 51st, New York, N. Y.  
A.B. Coll. of City of N. Y. 1862; M.D. New York Medical College 1864.
- 1899 Brewster, Mary Jones 8 Bedford Terrace, Northampton, Mass.  
B.S. Wellesley 1883; M.D. Woman's Med. Coll. of Penna. 1892.
- 1886 \*Briggs, Chas. E. (\*1894) - - - St. Louis, Mo.
- 1897 Brinsmade, Wm. B - - - 123 Joralemon, Brooklyn, N. Y.  
A.B. Yale 1888; M.D. Columbia 1892.
- 1890 Bristol, Bennett J - - - Webster Groves, Mo.  
A.B. Yale 1854; M.D. Long Island Coll. Hosp. 1866.
- 1897 Bristow, Algernon T - - - 234 Clinton, Brooklyn, N. Y.  
A.B. Yale 1873; M.D. Columbia 1876.
- 1894 Brock, Henry H - - - 662 Congress, Portland, Me.  
A.B. Amherst 1886; M.D. Bowdoin 1890.  
Assistant to Chair in Surgery Bowdoin; Adj. Instructor in Surgery Portland School for Med. Instruction.
- 1889 Brockman, David C - - - - - Ottumwa, Ia.  
A.B. Cornell Coll. (Ia.) 1882; Ia. State Univ. 1878.
- 1892 Brodie, Benjamin P - - - 64 Lafayette Ave., Detroit, Mich.  
A.B. Univ. of Mich. 1882; M.D. Mich. Coll. of Med. 1884.
- 1883 Bronson, Edward B - - - 123 W. 34th, New York, N. Y.  
A.B. Yale 1865; M.D. Columbia 1869.
- 1901 Brower, Daniel R - - - 34 Washington, Chicago, Ill.  
M.S. Polytechnic Coll., Phila., 1858; M.D. Georgetown 1864; A.M. Wabash 1891; LL.D. Kenyon 1894; Georgetown 1897; St. Ignatius Chicago 1898.
- 1896 Brown, Adelaide - - - 1212 Sutter, San Francisco, Cal.  
A.B. Smith 1888; M.D. Cooper Med. Coll. 1892.
- 1883 \*Brown, Alfred (\*1899) - - - - - Hellertown, Pa.
- 1896 Brown, Charlotte B - - - 1212 Sutter, San Francisco, Cal.  
A.B. Elmira Female Coll. 1866; M.D. Woman's Med. Coll. of Penna. 1874.
- 1879 Brown, Francis H - - - Hotel Lyndeboro, Boston, Mass.  
A.B. Harvard 1857; A.M. Ibid. 1860; M.D. Ibid. 1861.  
Consulting Surgeon Children's Hospital.

\* Deceased.

- 1894 Brown, Frank I - - - - South Portland, Me.  
A.B. Bowdoin 1885; M.D. Ibid. 1891.  
Instructor Anatomy Portland School for Medical Instruction.
- 1899 Brown, John E - - - 239 E. Town, Columbus, O.  
B.S. Ohio Wesleyan Univ. 1884; M.D. Med. Coll. of Ohio 1887.
- 1890 \*Browning, Wm. W. (\*1900) - - - Brooklyn, N. Y.
- 1877 \*Bruce, Geo. D. (\*1891) - - - - Pittsburgh, Pa.  
Member of Council, 1885.
- 1901 Brunner, Wm. E - - 514 New England Bldg., Cleveland, O.  
A.B. Wesleyan 1888; A.M. Ibid. 1891; M.D. Univ. of Penna. 1891.
- 1901 Bruyere, John - - - 123 Perry, Trenton, N. J.  
B.S. Rutgers 1881; M.S. Ibid. 1884; M.D. Jefferson Med. Coll. 1884.
- 1881 \*Buel, Henry W. (\*1893) - - - Litchfield, Conn.
- 1898 Buel, John L - - - - Litchfield, Conn.  
A.B. Yale 1885; M.D. Columbia (Coll. P. & S.) 1888.
- 1889 Buist, John R - - - 151 N. Spruce, Nashville, Tenn.  
A.B. South Carolina Coll. 1854; M.D. Univ. City of N. Y. 1857; M.D.  
Bellevue Hospital Med. Coll. 1858.
- 1877 \*Bulkeley, Jonathan E - - - - Wilkes-Barre, Pa.
- 1879 Bulkley, L. Duncan - 531 Madison Ave., New York, N. Y.  
A.B. Yale 1866; A.M. Ibid. 1869; M.D. Columbia 1869.  
Member of Council, 1882, 1884, 1887; Vice-president, 1885; President, 1897.
- 1899 Bullard, Frank D - 245 Bradbury Block, Los Angeles, Cal.  
A.B. Colby 1881; M.D. Univ. of Southern Cal. 1888.  
Prof. Chemistry Coll. of Med., Univ. of Southern California.
- 1886 \*Bunting, Ross R. (\*1900) - - - Philadelphia, Pa.
- 1888 \*Burbank, Augustus H - - - Yarmouthville, Me.
- 1881 Burchard, Thos. R - - - 24 W. 40th, New York, N. Y.  
A.B. Coll. City of N. Y. 1869; M.D. Bellevue Hosp. Med. Coll. 1872.
- 1897 Burgin, Herman - - 63 W. Chelton Ave., Germantown, Pa.  
A.B. Univ. of Penna. 1871; M.D. Jefferson Med. Coll. 1879.
- 1882 \*Bush, Lewis P. (\*1892) - - - - Wilmington, Del.  
Vice-president, 1885; President, 1886.
- 1892 Butler, Glentworth R - - 229 Gates Ave., Brooklyn, N. Y.  
A.B. Hamilton 1877; M.D. Long Island Coll. Hosp. 1880.
- 1879 \*Cabell, James L - - - Univ. of Va., Charlottesville, Va.  
Member of Council, 1886.
- 1882 Cadwalader, Chas. E - - - 240 S. 4th, Philadelphia, Pa.  
A.B. Univ. of Penna. 1858; M.D. Ibid. 1861.
- 1901 Cadwallader, Edith W - - - - -  
- The Woman's Hospital, N. College Ave., Philadelphia, Pa.  
B.S. Smith 1891; M.D. Woman's Med. Coll. of Penna. 1900.
- 1901 Cahill, John T - - - 344 Haverhill, Lawrence, Mass.  
A.B. Holy Cross 1890; A.M. Ibid. 1895; M.D. Harvard 1897.
- 1901 Campbell, W. Francis - 127 Lafayette Ave., Brooklyn, N. Y.  
A.B. Univ. of the City of N. Y. 1887; M.D. Long Island Coll. Hosp. 1892.
- 1895 Capron, Franklin P - - - 118 Angell, Providence, R. I.  
A.B. Brown 1877; M.D. Columbia 1879.
- 1898 Carhart, W. M. d'A - 252 Madison Ave., New York, N. Y.  
A.B. Yale 1885; M.D. Columbia 1889.

\* Deceased.

- 1899 Carpenter, Eugene G - - - State Hospital, Columbus, O.  
A.B. Ohio Wesleyan Univ. 1882; M.D. Coll. P. & S. Baltimore 1884.  
Superintendent State Hospital for the Insane.
- 1879 \*Carpenter, John T. (\*1899) - - - - Pottsville, Pa.
- 1894 Carpenter, W. T - - - - Iron Mountain, Mich.  
A.B. Univ. of Vermont 1861; M.D. Univ. of Nashville 1864.  
Chief Surgeon Chapin Hospital.
- 1881 Carr, Geo. W - - - 27 Waterman, Providence, R. I.  
A.M. Brown 1857; M.D. Univ. of Penna. 1860.
- 1889 Carter, James M. G - - - 236 County, Waukegan, Ill.  
A.B. St. John's Coll. 1877; M.D. Northwestern Univ. 1880.  
Prof. Clinical and Preventive Medicine Coll. P. & S. Chicago.
- 1888 \*Cary, George (\*1899) - - - - Houlton, Me.
- 1892 Castle, Curtis H - - - - Merced, Cal.  
A.B. Northwestern Univ. 1872; M.D. Coll. P. & S. Keokuk, Ia., 1878.  
Representative 55th U. S. Congress.
- 1882 Castle, Franklin D - - - 1502 Walnut, Philadelphia, Pa.  
A.B. Univ. of Penna. 1864; M.D. Univ. of Wurzburg 1870.
- 1879 \*Caswell, Edward T - - - - Providence, R. I.  
President, 1880.
- 1892 Cato, Frank L - - - - De Soto, Ga.  
A.B. Mercer Univ. 1882; M.D. Jefferson Med. Coll. 1887.
- 1890 Cattell, Henry W - - - 3709 Spruce, Philadelphia, Pa.  
A.B. Lafayette 1883; M.D. Univ. of Penna. 1887.
- 1900 Chaddock, C. G - - - 3750 Lindell Boulevard, St. Louis, Mo.  
M.D. Univ. of Mich. 1885.
- 1895 Chapin, Chas. V - - - City Hall, Providence, R. I.  
A.B. Brown 1876; M.D. Bellevue Hosp. Med. Coll. 1879.  
Supt. of Health, Providence.
- 1896 \*Chapman, Frank B. (\*1897) - - - Middleton, Mass.
- 1892 Chapman, Norman H - - - - Montevista, Colo.  
B.S. Knox 1876; M.D. Jefferson Med. Coll. 1879.
- 1898 Chase, John - - - Kittredge Bldg., Denver, Colo.  
A.B. Univ. of Mich. 1879; M.D. Ibid. 1881.  
Prof. Ophthalmology, Otolology, and Rhinology Univ. of Colorado.
- 1890 \*Cheeseman, Nathaniel S. (\*1901) - - - Scotia, N. Y.
- 1895 Chesebro, Edmund D - - - - -  
- - - Cor. Elmwood Ave., and Hawthorne, Providence, R. I.  
A.B. Brown 1887; M.D. Columbia 1890.  
Asst. Surgeon Out-patient Dept., R. I. Hospital.
- 1884 \*Chestnut, John H. W. (\*1900) - - - Philadelphia, Pa.  
Member of Council, 1899.
- 1878 Chrystie, Thos. M. L - - - 1748 Broadway, New York, N. Y.  
A.B. Trinity 1863; A.M. Ibid. 1866; M.D. Bellevue Hospital Med. Coll. 1867.
- 1878 Cisna, Wm. R - - - - Penna. Co., Chicago, Ill.  
A.B. Dickinson 1863; M.D. Univ. of Penna. 1865; A.M. Dickinson 1866.
- 1897 \*Clark, Chas. F - - - - Brooklyn, N. Y.
- 1887 Clarke, Augustus P - - - 825 Massachusetts Ave., Cambridge, Mass.  
M.D. Harvard 1862; A. M. Brown 1887.

\* Deceased.

- 1879 Cleeman, Richard A - - - 2135 Spruce, Philadelphia, Pa.  
A.B. Univ. of Penna. 1859; M.D. Ibid. 1862.
- 1898 Clough, Augustus A - - - 1349 California, Denver, Colo.  
A.B. Hamilton 1884; M.D. Univ. of Denver 1886.
- 1891 Cluness, Wm. R., N. W. Cor. Stockton & Sutter, San Francisco, Cal.  
A.B. Queen's Univ. (Kingston) 1855; M.D. Ibid. 1859.
- 1883 Clute, Wm. T - - - 520 Liberty, Schenectady, N. Y.  
A.B. Union 1873; M.D. Cincinnati Coll. of Med. and Surgery 1879.
- 1890 Coan, Titus M - - - 70 5th Ave., New York, N. Y.  
A.B. Williams 1859; M.D. Columbia (Coll. P. & S.) 1861.
- 1884 \*Coblenz, Joseph (\*1899) - - - - - Vaughan, Wash.
- 1894 Cochran, Jasper D - - - - - Saco, Me.  
A.B. Wesleyan Univ. 1880; M.D. Columbia (Coll. P. & S.) 1886.
- 1888 \*Cocks, David C. (\*1890) - - - - - New York, N. Y.
- 1901 Coggeshall, Frederic - - - 1077 Boylston Ave., Boston, Mass.  
A.B. Harvard 1886; M.D. Ibid. 1892.
- 1897 Cogswell, Chas. H - - - 409 Marlboro, Boston, Mass.  
A.B. Dartmouth 1880; M.D. Harvard 1883.
- 1894 Cohen, Solomon Solis- - - 1525 Walnut, Philadelphia, Pa.  
A.B. Central High School, Philadelphia, 1872; M.D. Jefferson Med. School 1883.  
Professor Clin. Med. and Therapeutics Phila. Polyclinic; Lecturer Clinical Med. Jeff. Med. Coll.; Phys. Phila., Rush, Polyclinic and Hosps.; Consultant Jewish Hosp. and Penn. Training School for Feeble-minded Children.
- 1895 Collins, Geo. L - - - 223 Benefit, Providence, R. I.  
Ph.B. Brown 1873; M.D. Harvard 1879.
- 1877 \*Collins, James (\*1895) - - - - - Philadelphia, Pa.
- 1896 Collins, Rufus G - - - 5059 State, Chicago, Ill.  
Ph.B. Beloit 1882; M.D. Northwestern Univ. 1885.
- 1899 Connell, Chas. W - - - - - Fall River, Mass.  
A.B. Brown 1881; M.D. Harvard 1887.
- 1886 Connell, J. G - - - 3519 5th Ave., Pittsburg, Pa.  
A.B. Univ. of Wooster 1874; M.D. Columbia 1877.
- 1880 Conner, Phineas S - - - 159 W. 9th, Cincinnati, O.  
A.B. Dartmouth 1859; M.D. Jefferson Med. Coll. 1861; A.M. Dartmouth 1862. LL.D.  
Vice-president, 1886; President, 1891.  
Prof. Surg. Med. School, Dartmouth Coll., Hanover, N. H.  
" " and Clin. Surg. Med. Coll. of O.
- 1878 Connor, Leartus - - - 103 Cass, Detroit, Mich.  
A.B. Williams 1865; A.M. Ibid. 1868, M.D. Columbia (P. & S.) 1870.  
President, 1888.  
President Michigan Med. Soc., 1901-2.
- 1885 Cook, Chas. E - - - - - Mendota, Ill.  
A.B. Northwestern Univ. 1879; M.D. Northwestern Univ. (Chicago Med. Coll.) 1881.
- 1877 Cook, Joseph S - - - - - Washington, N. J.  
A.B. Union 1853; M.D. Univ. of Penna. 1856; A.M. Lafayette 1865.
- 1899 Cooperrider, Chas. A - - - 370 S. 4th, Columbus, O.  
A.B. Capital Univ. 1886; M.D. Med. Coll. of O. 1890.

\* Deceased.

- 1898 Corson, Elton S - - - - - Toungoo, Barma.  
A.B. Bucknell 1892; M.D. Univ. of Penna. 1895.  
Medical Missionary.
- 1898 Corae, Frederic - - - - - Kingston, Pa.  
A.B. Lafayette 1862; M.D. Univ. of Penna. 1866.
- 1888 Cotton, David B - - - - - Portsmouth, O.  
A.B. Marietta 1853; M.D. Jefferson Med. Coll. 1856.
- 1897 Coverly, John H - - - 191 Washington Park, Brooklyn, N. Y.  
M.D. Glasgow Univ. 1865.
- 1882 Cowan, Geo - - - - - Danville, Ky.  
A.B. Centre 1851; M.D. Jefferson Med. Coll. 1855.
- 1884 Cowles, Edward - - - - - Somerville, Mass.  
A.B. Dartmouth 1859; M.D. Ibid. 1863. LL.D.  
Supt. McLean Asylum; Prof. Mental Diseases Med. School, Dartmouth  
Coll.; Lecturer in Mental Diseases Med. School, Howard Univ.
- 1897 Craig, Alexander R - - - 232 Cherry, Columbia, Pa.  
A.B. Franklin and Marshall 1890; M.D. Univ. of Penna., 1893.  
Assistant Secretary, 1900-
- 1901 Craig, J. J - - - - - Columbia, Pa.  
A.B. Franklin and Marshall 1898; A.M. Ibid. 1901; M.D. Jefferson Med.  
Coll. 1901.
- 1883 \*Crane, Chas. H (\*1883) - - - - - U. S. A.
- 1897 Criado, Louis F - - - 221 W. 57th, New York, N. Y.  
A.B. St. Louis Coll. (Cuba) 1875; M.D. Columbia 1879.
- 1899 Crile, Geo. W - - - - - "The Osborn," Cleveland, O.  
A.B. Univ. of Wooster 1884; M.D. Ibid. 1887.  
Prof. Surgery and Applied Anatomy Med. Dept., Ohio Wesleyan Univ.
- 1888 Crocker, Frank H - - - - - Machias, Me.  
A.B. Bowdoin 1877; M.D. Bowdoin 1882.
- 1892 Crossland, Jefferson C - - - - - Zanesville, O.  
A.B. Ohio Wesleyan Univ. 1884; M.D. Univ. of Cincinnati (Ohio Med.  
Coll.) 1887.
- 1888 Culbertson, Emma B - - - 33 Newberry, Boston, Mass.  
A.B. Vassar 1877; M.D. Woman's Med. Coll. of Penna. 1881.  
Vice-president, 1895.  
Phys. and Surg. N. E. Hosp. Dispy.
- 1897 Culbreth, David M. R - - 203 E. Preston, Baltimore, Md.  
M.D. Coll. P. and S., Baltimore, 1883.  
Assoc. Prof. Materia Medica and Pharmacognosy Med. Dept., Univ. of Md.
- 1899 Culver, Chas. M - - - 36 Eagle, Albany, N. Y.  
A.B. Union 1878; M.D. Union (Albany Med. Coll.) 1881.  
Vice-president, 1901. Member of Council, 1902.
- 1888 §Cummings, Charles E.  
A.B. Westminster 1879; M.D. Bellevue Hosp. Med. Coll. 1883.
- 1888 Cummings, Geo. H - - - 699 Congress, Portland, Me.  
A.B. Bowdoin 1872; M.D. Columbia (Coll. P. and S.), 1875.  
Adj. Surgeon Me. General Hosp.; Clinical Instructor in Surgery Portland.
- 1901 Curtin, Roland G - - - 22 S. 18th, Philadelphia, Pa.  
M.D. Univ. of Penna. 1866; Ph.D. Ibid. 1872; A.M. Lafayette 1883.

§ Present whereabouts unknown.

\* Deceased.

- 1886 Curtis, Lester - - - - Big Rapids, Mich.  
A.B. Yale 1867; M.D. Northwestern Univ. (Chicago Med. Coll.) 1870.
- 1877 \*Curwen, John (\*1901) - - - - Harrisburg, Pa.
- 1888 Cutter, Chas. K - - - - 178 School, Somerville, Mass.  
A.B. Tufts 1872; M.D. Harvard 1876.
- 1900 Daland, Judson - - - - 317 S. 18th, Philadelphia, Pa.  
M.D. Univ. of Penna. 1882.
- 1881 Dana, Chas. L - - - - 50 W. 46th, New York, N. Y.  
A.B. Dartmouth 1872; M.D. Columbia 1877.  
Prof. Diseases of Nervous System Cornell Univ. Med. Coll.; Phys. to  
Bellevue Hosp.; Neurologist to the Montiflore Home.
- 1889 \*Dana, Wm. L (\*1897) - - - - Portland, Me.
- 1899 Dandridge, Nathaniel P - - - - 442 Broadway, Cincinnati, O.  
A.B. Kenyon 1866; M.D. Columbia (Coll. P. and S.) 1870.
- 1891 Darcy, J. Herbert - - - - Northwood, Iowa  
A.B. McGill Univ. 1880; M.D. Ibid. 1885.
- 1898 Darnall, Wm. E - - - - 1719 Pacific Ave., Atlantic City, N. J.  
A.B. Washington and Lee 1892; M.D. Univ. of Va. 1895.
- 1879 Darrach, James - - - - 5021 Green, Germantown, Pa.  
A.B. Univ. of Penna. 1850; M.D. Penna. Med. Coll. 1853; A.M. Univ. of  
Penna. 1854.  
Consulting Surgeon Germantown Hosp.
- 1889 \*Davies, John E (\*1900) - - - - Madison, Wis.
- 1888 Davies, Oscar C. S - - - - 243 Water, Augusta, Me.  
A.B. Bowdoin 1879; M.D. Ibid. 1885.
- 1897 Davis, Gwilym G - - - - 255 S. 16th, Philadelphia, Pa.  
A.B. Central High School, Phila., 1876; M.D. Univ. of Penna. 1879.  
Surgeon Episcopal, Jewish, and Orthopedic Hosps.
- 1895 Davis, John S - - - - Univ. Station, Charlottesville, Pa.  
A.M. Univ. of Va. 1888; M.D. Ibid. 1889.  
Adj. Prof. Pathology Univ. of Va.
- 1901 Davis, John S., Jr. - - - - Union Protestant Hospital, 1514 Division,  
Baltimore, Md.  
Ph.B. Yale 1895; M.D. Johns Hopkins 1899.
- 1885 Davis, Nathan S., Jr. - - - - 65 Randolph, Chicago, Ill.  
A.B. Northwestern Univ. 1880; M.D. Ibid. 1883.  
Prof. Principles and Practice of Medicine and Clin. Med. Med. Sch.,  
Northwestern Univ.
- 1886 Davis, Thos. D - - - - 261 Shady Ave., Pittsburg, Pa.  
A.B. Washington and Jefferson 1866; M.D. Jefferson Med. Coll. 1870.  
Member of the Council, 1902.
- 1895 Day, Frank L - - - - 240 Benefit, Providence, R. I.  
A.B. Brown; M.D. Harvard 1889.  
Phys. St. Joseph's Hosp. and Out-patient Dept., R. I. Hosp.
- 1880 Deal, Lemuel J - - - - 2106 Hancock, Philadelphia, Pa.  
A.B. Univ. of Penna. 1860; M.D. Jefferson Med. Coll. 1865.
- 1889 Dearborn, Alvah B - - - - Somerville, Mass.  
A.B. Bowdoin 1863; M.D. Bowdoin 1870.
- 1889 Denison, Charles - - - - 823 14th, Denver, Colo.  
A.B. Williams 1867; M.D. Univ. of Vt. 1869.  
Vice-president, 1892, 1897.  
Emeritus Prof. Diseases of Chest and Climatology School of Med., Univ.  
of Denver.

\* Deceased.

- 1888 Dennett, Wm. S - - - 8 E. 49th, New York, N. Y.  
A.B. Bowdoin 1871; M.D. Harvard 1874.
- 1897 Dennis, Frederic S - - 542 Madison Ave., New York, N. Y.  
A.B. Yale 1872; M.D. Bellevue Hosp. Med. Coll. 1874.  
Prof. Clinical Surgery Cornell Univ. Med. Coll.; Surgeon to Bellevue and  
St. Vincent Hosps.
- 1892 De Spelder, Elias - - - - Drenthe, Mich.  
A.B. Hope 1879; M.D. Univ. of Mich. 1882.
- 1882 Devendorf, C. A - - 508 Woodward Ave., Detroit, Mich.  
A.B. Williams 1859; M.D. Bellevue Hosp. Med. Coll. 1866.  
Prof. Obstetrics and Clin. Midwifery Detroit Coll. of Med.
- 1889 Dewees, Wm. B - - 542 S. Sante Fe Ave., Salina, Kas.  
A.B. Ursinus 1871; M.D. Univ. of Penna. 1877.
- 1900 Dewey, Richard - - - - Wauwatosa, Wis.  
M.D. Univ. of Mich. 1869.
- 1900 Dickey, John L - Cor. 12th and Chapline, Wheeling, W. Va.  
A.B. Washington and Jefferson 1876; M.D. Jefferson Medical College  
1883.
- 1879 \*Dickson, J. N - - - - Pittsburg, Pa.
- 1897 Diefenderfer, Harold - - 6303 Monroe Ave., Chicago, Ill.  
A.B. Lafayette 1891; M.D. Univ. of Penna. 1894.
- 1897 Diehl, Alfred E - - - 361 Pearl, Buffalo, N. Y.  
A.B. Hobart 1889; M.D. Univ. of Penna. 1892.  
Adj. Clin. Prof. Dermatology Med. Dept., Univ. of Buffalo.
- 1888 Diven, Samuel L - - - 95 N. Hanover Carlisle, Pa.  
A.B. Dickinson 1878; M.D. Univ. of Penna. 1884.
- 1889 Doane, L. Leo. - - - 303 Chestnut, Meadville, Pa.  
A.B. Allegheny Coll. 1884; M.D. Coll. P. and S., Baltimore, 1886.
- 1900 Dock, Geo. - - - 14 Cornwell's Place, Ann Arbor, Mich.  
M.D. Univ. of Penna. 1884; A.M. Harvard 1898.
- 1896 Dodds J. Chambers - - - - Tolono, Ill.  
B.L. Univ. of Ill. 1886; M.D. Northwestern Univ. 1889.
- 1878 \*Dodge, Daniel A - - - - Brooklyn, N. Y.
- 1896 Dorland, W. A. Newman - - 120 S. 17th, Philadelphia, Pa.  
A.B. Central High School, Phila., 1882; M.D. Univ. of Pa. 1886.  
Vice-president, 1902.  
Instructor Gynecology Phila. Polyclinic.
- 1895 Doughty, Wm. H., Jr. - - - 822 Greene, Augusta, Ga.  
A.B. Univ. of Ga. 1875; M.D. Ibid. 1878.  
Member of Council, 1895.  
Prof. Anatomy and Clinical Surgery Med. Dept., Univ. of Ga.
- 1892 Dow, Frank F - - - 68 Vick Park, Rochester, N. Y.  
A.B. Amherst 1874; M.D. Univ. of Buffalo 1885.
- 1897 Drown, Thos. M - - - - South Bethlehem, Pa.  
A.B. Central High School, Phila., 1859; M.D. Univ. of Penna. 1862; LL.D.  
Columbia 1895.  
President Lehigh University.
- 1879 Drysdale, Thos. M - - - 1307 Locust, Philadelphia, Pa.  
M.D. Penna. Med. Coll. 1852; A.M. Lafayette 1879.  
Vice-president, 1882.
- 1883 \*DuBois, Francis L (\*1895) - - - - U. S. N.

\* Deceased.



- 1881 Dudley, E. C - - - 1617 Indiana Ave., Chicago, Ill.  
A.B. Dartmouth 1873; M.D. Long Island Coll. Hosp. 1875.
- 1886 Duff, John M - - - 4502 5th Ave., Pittsburg, Pa.  
A.B. Western Univ. of Penna. 1872; M.D. Jefferson Med. Coll. 1874.  
Prof. Obstetrics and Associate to Chair of Diseases of Women Western Univ.
- 1891 Dundor, Adam B - - - 118 S. 4th, Reading, Pa.  
A.B. Franklin and Marshall 1862; M.D. Long Island Coll. Hosp. 1863.
- 1878 \*Dunglison, Richard J (\*1901) - - - Philadelphia, Pa.  
Sec'y, 1878-1889; Treasurer, 1879-1889; Vice-president, 1890; Member of the Council, 1891.
- 1898 Dunham, Edward K - - - 338 E. 26th, New York, N. Y.  
Ph.B. Columbia 1881; M.D. Harvard 1886.
- 1899 Dunham, John D - - - 228 E. Town, Columbus, O.  
A.B. Univ. of Mich. 1894; M.D. Ohio Medical Univ. 1897.
- 1890 \*Dunlap, W. Herbert (\*1895) - - - Syracuse, N. Y.
- 1883 \*Dunster, E. S - - - Ann Arbor, Mich.
- 1889 Dunton, Wm. R - - 5059 Germantown Ave., Philadelphia, Pa.  
A.B. Univ. of Penna. 1850; M.D. Ibid. 1853.  
Consulting Physician Germantown Hosp.
- 1894 Durand, Henry S - - - 87 S. Fitzhugh, Rochester, N. Y.  
A.B. Yale 1881; M.D. Harvard 1888.
- 1882 Dwight, Henry E - - - 336 S. 15th, Philadelphia, Pa.  
A.B. Yale; M.D. Univ. of Penna. 1867; D.D. Univ. of Washington and Lee 1882.
- 1878 \*Dyer, Ezra - - - Newport, R. I.
- 1891 Edgar, J. Clifton - - - 54 E. 34th, New York, N. Y.  
Ph.B. Lafayette 1882; M.D. Univ. of City of N. Y. 1885.  
Prof. Obstetrics and Clinical Midwifery Cornell Univ. Med. Coll.;  
Phys. to Mothers and Babies and to the Maternity Hosps.
- 1892 Edwards, Arthur A - - - 2816 Indiana Ave., Chicago, Ill.  
A.B. Northwestern Univ. 1888; M.D. Ibid. 1891.  
Prof. Principles and Practice of Medicine and Clin. Medicine Med. Sch. of Northwestern Univ.
- 1897 Einhorn, Max - - - 20 E. 63rd, New York, N. Y.  
M.D. Univ. of Berlin 1884.
- 1898 Elliot, Geo. T - - - 36 E. 35th, New York, N. Y.  
A.B. Yale 1877; M.D. Univ. of La. 1891.  
Prof. Dermatology Med. Sch. of Cornell Univ.; Assist. Phys. Skin and Cancer Hospital.
- 1897 Ellis, H. Bert - - - 243 Bradbury Block, Los Angeles, Cal.  
A.B. Univ. of New Brunswick (Canada) 1884; M.D. Univ. of S. California 1888.  
Vice-president, 1902.  
Prof. Ophthalmology Coll. of Med., Univ. of S. California; Visiting Surg. Cal. and Los Angeles County Hospitals.
- 1885 Elmer, Henry W - - - 65 W. Commerce, Bridgeton, N. J.  
A.B. Princeton 1866; M.D. Univ. of Penna. 1869.  
Member of Council, 1899.
- 1888 Elmer, Matthew W - - - Bridgeton, N. J.  
A.B. Princeton 1882; M.D. Univ. of Penna. 1885.
- 1880 \*Elmer, Wm. - - - Bridgeton, N. J.  
Vice-president, 1882.

\* Deceased.

- 1880 Elmer, Wm., Jr. - - - 44 W. State, Trenton, N. J.  
A.B. Princeton 1861; M.D. Univ. of Penna. 1864.  
Member of Council, 1883; Vice-president, 1884, 1898.
- 1900 Elmere, J. A. - - - 552 Columbus Ave., Boston, Mass.  
A.B. Augustana Coll. 1890; M.D. Kansas. Med. Coll. 1894.
- 1879 \*Elsberg, Louis (\*1885) - - - New York, N. Y.  
Member of Council, 1879; Vice-president, 1881.
- 1880 Ely, James, W. C. - - - 61 Waterman, Providence, R. I.  
A.B. Brown 1842; M.D. Harvard 1846.
- 1897 Ely, Thomas C. - - - 2041 Green, Philadelphia, Pa.  
M.D. Univ. of Penna. 1887; A.M. Colgate 1890.
- 1883 Emerson, Justin E. - - - 128 Henry, Detroit, Mich.  
A.B. Williams 1865; M.D. Harvard 1868.  
Member of Council, 1888; Vice-president, 1889; President, 1892.  
Clin. Prof. Nervous Diseases Detroit Coll. of Med.
- 1890 Emerson, Nathaniel B. - - - Honolulu, Hawaiian Islands  
A.B. Williams 1865; M.D. Columbia (Coll. P. and S.) 1869.
- 1879 \*Engel, Hugo (\*1897) - - - Philadelphia, Pa.
- 1892 Engleman, Geo. J. - - - 208 Beacon, Boston, Mass.  
A.B. Washington Univ. 1867; M.D. Univ. of Berlin 1871.
- 1898 Englemann, Rosa - - - 3035 Indiana Ave., Chicago, Ill.  
A.B. Milwaukee 1884; M.D. Northwestern Univ. (Woman's Med. Coll.) 1889.  
Prof. Pediatrics P.-G. Med. Sch., Chicago; Consultant Jackson Park Sanitarium, Mary Thompson Hosp.; Pediatricist United Hebrew Charities, W. Side Dispensary.
- 1892 Erwin, R. W. - - - Bay City, Mich.  
B.S. Ohio Univ. 1868; M.D. Bellevue Hosp. Med. Coll. 1870.
- 1897 Eshner, Augustus A. - - - 224 S. 16th, Philadelphia, Pa.  
A.B. Central High School, Phila., 1879; M.D. Jefferson Med. Coll. 1888.  
Physician Phila. Hosp.
- 1898 Esterly, Daniel E. - - - 723 Kansas Ave., Topeka, Kan.  
B.S. Univ. of Kansas 1890; M.D. Univ. of Penna. 1893.
- 1892 Estes, W. L. - - - South Bethlehem, Pa.  
M.D. Univ. of Va. 1877; M.D. Univ. of the City of N. Y. 1878; A.M. Bethany 1892.  
Member of Council, 1897; Vice-president, 1898.  
Surgeon-in-chief St. Luke's Hospital.
- 1877 Evans, Horace Y. - N. E. Cor. 17th and Green, Philadelphia, Pa.  
A.B. Princeton 1855; A.M. Ibid. 1858; M.D. Univ. of Penna. 1858.  
Physician Charity Hospital.
- 1888 \*Eveleth, John M (\*1894) - - - Hallowel, Me.
- 1900 Everitt, Ella B. - The Woman's Hospital, Philadelphia, Pa.  
A.B. Wilson 1888; M.D. Woman's Med. Coll. of Penna. 1891.
- 1889 Ewers, Henry F. - - - Union City, Mich.  
A.B. Hamilton 1850; M.D. Castleton 1854.
- 1889 Ewing, Arthur E. - - - 2670 Washington Ave., St. Louis, Mo.  
A.B. Dartmouth 1878; M.D. Washington Univ. (St. Louis Med. Coll.) 1883.
- 1892 Ewing, W. Brown - - - Wernersville, Pa.  
A.B. Washington and Jefferson 1881; M.D. Rush Med. Coll. 1885.
- 1888 Fairbairn, Henry A. - - - 213 McDonough, Brooklyn, N. Y.  
A.B. St. Stephen's Coll. 1875; M.D. Univ. of Va. 1877.

\* Deceased.

- 1881 \*Farnham, Horace P - - - - New York, N. Y.  
 1883 Farnsworth, Philo J - - - - Clinton, Iowa  
 A.B. Univ. of Vermont 1854; M.D. Ibid. 1858; M.D. Columbia (Coll. P. and S.) 1860.  
 1893 Favill, Henry B - - - - 138 Pine, Chicago, Ill.  
 A.B. Univ. of Wisconsin 1880; M.D. Rush Med. Coll. 1883.  
 1879 \*Fegley, Orlando (\*1900) - - - - Allentown, Pa.  
 1892 Felch, Theodore A - - - 304 W. Euclid, Ishpeming, Mich.  
 Ph.B. Univ. of Mich. 1871; M.D. Detroit Med. Coll. 1874.  
 1891 Felter, Mahlon - - - - 1626 5th Ave., Troy, N. Y.  
 A.B. Union 1857; M.D. Ibid. 1859.  
 1891 \*Fenger, Christian (\*1902) - - - - Chicago, Ill.  
 1878 Fisher, Frank - - - - 1832 Arch, Philadelphia, Pa.  
 A.B. Central High School, Phila. 1871; M.D. Jefferson Med. Coll. 1875;  
 A.M. Central High School 1876.  
 1878 \*Fisher, Geo. J (\*1893) - - - - Sing Sing, N. Y.  
 Vice-president, 1888, 1891.  
 1889 Fisk, Samuel A - - - - 37 18th Ave., Denver, Colo.  
 A.B. Yale 1877; M.D. Harvard 1880.  
 Member of Council, 1897.  
 Emeritus Prof. Med. Sch. of Med., Denver Univ.  
 1889 Fiske, Geo. F - - - - 438 La Salle Ave., Chicago, Ill.  
 A.B. Amherst 1881; M.D. Yale 1883.  
 1890 Fitz, Edward S - - - - 1305 Arch, Philadelphia, Pa.  
 A.B. Amherst 1871; M.D. Rush Med. Coll. 1881.  
 1892 Fleming, Geo. W - - - - Shelbyville, Ind.  
 A.B. Washington and Jefferson 1865; M.D. Bellevue Hosp. Med. Coll. 1868.  
 1889 \*Flint, Kendall (\*1892) - - - - Haverhill, Mass.  
 1890 Flintermann, Johann - - - Woodward Ave., Detroit, Mich.  
 M.D. Univ. of Goettingen 1864.  
 1888 Flood, Everett - - - - Palmer, Mass.  
 A.B. Colby 1879; M.D. Bowdoin 1881.  
 Vice-president, 1896.  
 Supt. Mass. Hospital for Epileptics.  
 1897 Fly, Edward M - - - - National City, Cal.  
 A.B. Lafayette 1888; M.D. Jefferson Med. Coll. 1894.  
 1890 Flynn, Wm - - - - Marion, Ind.  
 A.B. Asbury Univ. 1874; M.D. Louisville Med. Coll. 1876.  
 Prof. Phys. Diagnosis and Diseases of the Chest Med. Coll. of Indiana Indianapolis.  
 1893 Focht, Wm. H - - - - 64½ E. Perry, Tiffin, O.  
 B.S. Heidelberg Univ. (Ohio) 1880; M.D. Coll. P. and S., Baltimore, 1883.  
 1896 Ford, De Saussure - - - - Augusta, Ga.  
 A.B. Univ. of Ga. 1855; M.D. Ibid. 1856.  
 Prof. Midwifery and Clinical Surg. Med. Dept., Univ. of Ga.  
 1878 \*Ford, Wm. H (\*1897) - - - - Philadelphia, Pa.  
 1901 Ford, Wm. W - - - - 45 Victoria, Montreal, Can.  
 A.B. Western Reserve 1893; M.D. Johns Hopkins 1898; Dip. Public Health McGill 1900.

\* Deceased.

- 1892 Fordyce, John A - - 66 Park Ave., New York, N. Y.  
A.B. Adrian 1878; M.D. Northwestern Univ. (Chicago Med. Coll.) 1881.  
Prof. Dermatology and Syphilology Univ. and Bellevue Hosp. Med.  
Coll.
- 1897 Forwood, Wm. H - - - - - U. S. A.  
M.D. Univ. of Penna. 1861.  
Col. and Assist. Sur-General U. S. A.
- 1899 Foshay, P. Maxwell - - 89 Euclid Ave., Cleveland, O.  
B.S. Geneva 1886; M.D. Univ. of Penna. 1891.  
Sec'y Ohio State Medical Society.
- 1890 Foskett, Geo. M - - - 235 Pleasant, Worcester, Mass.  
A.B. Amherst 1878; M.D. Univ. of Vermont 1882.
- 1888 Foster, Addison H - - - 779 W. Monroe, Chicago, Ill.  
A.B. Dartmouth 1863; M.D. Columbia (Coll. P. and S.) 1866.
- 1888 Foster, Chas. W - - - - Woodfords, Me.  
A.B. Colby 1871; M.D. Detroit Med. Coll. 1875.  
Vice-president. 1893.  
Physician St. Joseph's Home.
- 1897 Foster, Wm. S - - - 252 Shady Ave., Pittsburg, Pa.  
M.D. Jefferson Med. Coll. 1866; A.M. Washington and Jefferson 1896.
- 1877 \*Foulke, Lewis W (\*1887) - - - Chillicothe, O.
- 1882 \*Foulkes, James F - - - - Oakland, Cal.
- 1878 Fox, Geo. H - - - 18 E. 31st, New York, N. Y.  
A.B. Univ. of Rochester 1867; M.D. Univ. of Penna. 1869; A.M. Univ. of  
Rochester 1870.  
Clin. Prof. Diseases of the Skin School of Med., Columbia Univ.
- 1877 \*Franklin, Gustavus S (\*1901) - - - Chillicothe, O.
- 1884 Free, Spencer M - - - - DuBois, Pa.  
A.B. Ohio Wesleyan Univ. 1877; M.D. Coll. P. and S., Baltimore, 1880.
- 1897 Freeman, Leonard - - California Bldg., Denver, Colo.  
B.S. Univ. of Cincinnati 1882; M.D. Ibid. 1885.  
Prof. Surgery Gross Med. Coll.
- 1882 French, Geo. F - 1600 Hawthorne Ave., Minneapolis, Minn.  
A.B. Harvard 1859; M.D. Ibid. 1862.
- 1893 French, Samuel W - - 1216 Grand Ave., Milwaukee, Wis.  
A.B. Harvard 1873; M.D. Ibid. 1878.  
Vice-president, 1893.
- 1889 \*French, Wm. F (\*1898) - - - Noroton, Conn.
- 1898 Fretz, John Edgar - - - 112 N. 3rd, Easton, Pa.  
A.B. Lafayette 1893; M.D. Univ. of Penna. 1897.
- 1901 Freidenwald, Julius - - 7 W. Franklin, Baltimore, Md.  
A.B. Johns Hopkins 1887; M.D. Coll. P. and S. Baltimore 1890; A.M.  
Loyola Coll., Baltimore, 1899.
- 1901 Friedlander, Alfred - - - 22 W. 7th, Cincinnati, O.  
A.B. Harvard 1892; M.D. Med. Coll. of O. 1895.
- 1882 \*Frost, Carlton P (\*1896) - - - Hanover, N. H.  
Member of Council, 1891.
- 1878 \*Frintnight, J. Henry (\*1900) - - - New York, N. Y.
- 1888 Fry, Frank R - - - 2610 Locust, St. Louis, Mo.  
A.B. Ohio Wesleyan Univ. 1877; M.D. Washington Univ (St. Louis Med.  
Coll.) 1879.

\* Deceased.

- 1888 Fuller, Charles - - - - - Lincoln, Me.  
A.B. Bowdoin 1865; M.D. Ibid. 1869.
- 1897 Fuller, Geo. E - - - - - Monson, Mass.  
A.B. Amherst (nunc pro tunc) 1893; M.D. Georgetown Univ. 1865.
- 1888 \*Furbeck, Peter R (\*1902) - - - - - Gloversville, N. Y.
- 1882 Garçelon, Alonzo - - - - - Lewiston, Me.  
A.B. Bowdoin 1836; M.D. Univ. of Cincinnati (Med. Coll. of O.) 1839.  
Vice-president, 1889, 1890.  
Some time Governor of Maine.
- 1890 Gardiner, Edwin J - - - - - 170 State, Chicago, Ill.  
Universidad Central de Madrid, Spain, 1875; Licentiate in Medicine, San Carlos, Madrid, 1878.
- 1892 Gaston, J. McFadden - - - - - 228 "Prudential," Atlanta, Ga.  
A.B. So. Carolina Coll. 1843; M.D. Med. Coll. of So. Carolina 1846.  
Vice-president, 1893; President, 1894.
- 1898 Gaylord, John F - - - - - Plymouth, Mass.  
A.B. Yale 1876; M.D. Yale 1878.
- 1882 \*Gerhard, Abraham S (\*1891) - - - - - Philadelphia, Pa.
- 1878 Gerhard, Jerome Z - - - - - 27 S. 3rd, Harrisburg, Pa.  
A.B. Franklin and Marshall 1864; M.D. Univ. of Penna. 1868; A.M. Franklin and Marshall 1871.
- 1883 Gerrish, Frederic H - - - - - 675 Congress, Portland, Me.  
A.B. Bowdoin 1866; M.D. Ibid. 1869.  
Vice-president, 1885; President, 1887.  
Prof. Anatomy Bowdoin College; Instructor Surgery Portland School for Medical Instruction; Consultant Me. Gen. Hospital.
- 1892 Gerster, Arpad G - - - - - 34 E. 75th, New York, N. Y.  
M.D. University of Vienna 1872.
- 1888 Gibson, Arthur C - - - - - Bangor, Me.  
A.B. Bowdoin 1883; M.D. Ibid. 1885.
- 1887 Gibson, Wm. J - - - - - 711 S. 19th, Philadelphia, Pa.  
A.B. Princeton 1880; M.D. Columbia (Coll. P. and S.) 1882.
- 1883 \*Gihon, Albert L (\*1901) - - - - - U. S. N.  
Vice-president, 1883; President, 1884.
- 1897 Gilchrist, T. Caspar - - - - - 317 N. Charles, Baltimore, Md.  
M.R.C.S. and L.S.A. of London; M.B. Univ. of London.  
Clin. Prof. Dermatology Med. Dept., Johns Hopkins and Maryland Universities.
- 1888 \*Given, Obadiah G - - - - - Carlisle, Pa.
- 1890 Gleason, E. Baldwin - - - - - 1204 Walnut, Philadelphia, Pa.  
B.S. Univ. of Penna. 1875; M.D. Ibid. 1878.  
Clin. Prof. Otology Medico-Chi. College; Surg. in charge of Nose, Throat, and Ear Dept., Northern Dispensary.
- 1897 Goldspohn, Albert - - - - - 519 Cleveland Ave., Chicago, Ill.  
B.S. Northwestern Coll. 1875; M.D. Rush Med. Coll. 1878.  
Vice-president, 1899.
- 1888 Goodale, Geo. L - - - - - Cambridge, Mass.  
A.B. Amherst 1860; M.D. Bowdoin and Harvard 1863. L.L.D.  
Fisher Professor of Natural History and Director of the Botanic Garden Harvard University.

\* Deceased.

- 1901 Goodale, Joseph L. - - - 397 Beacon, Boston, Mass.  
A.B. Harvard 1889; M.D. Ibid. 1893.
- 1890 Goodale, Walter T. - - - - - Saco, Me.  
A.B. Bowdoin 1874; M.D. Harvard 1887.
- 1898 Goodwin, Ralph S. - - - - - Thomaston, Conn.  
M.D. Columbia (Coll. P. and S., N. Y.) 1866.  
Member of State B'd Health; Pres. Conn. State Med. Soc. (1898).
- 1890 Gorgas, Ferdinand I. S. - - - 845 N. Eutaw, Baltimore, Md.  
A.B. Dickinson 1854; M.D. Univ. of Md. 1863.
- 1892 Gould, G. M. - - - 1631 Locust, Philadelphia, Pa.  
A.B. Ohio Wesleyan Univ. 1872; M.D. Jefferson Med. Coll. 1888.  
President, 1893.  
Editor, *American Medicine*.
- 1878 \*Govan, Wm. (\*1894) - - - - - Stony Point, N. Y.  
Member of Council, 1881.
- 1889 Graham, David W. - - - 672 W. Monroe, Chicago, Ill.  
A.B. Monmouth 1870; M.D. Bellevue Hosp. Med. Coll. 1872.
- 1884 \*Graham, F. Ridgely (\*1895) - - - - - Chester, Pa.
- 1892 Grant, H. Horace - - - 1916 Market, Louisville, Ky.  
A.B. Centre 1875; M.D. Jefferson Med. Coll. 1878.
- 1889 Green, Edgar M. - - - 340 Spring Garden, Easton, Pa.  
A.B. Lafayette 1883; M.D. Univ. of Penna. 1886.  
Assistant Sec'y, 1890-1896; Member of Council, 1897.  
Consultant Easton Hospital and St. Luke's Hospital (South Bethlehem).
- 1884 \*Green, Jas. S. (\*1892) - - - - - Elizabeth, N. Y.
- 1883 Green, John - - - 2670 Washington Ave., St. Louis, Mo.  
A.B. Harvard 1855; M.D. Ibid. 1866.
- 1891 \*Green, John Traill (\*1892) - - - - - Tucson, Ariz.
- 1876 \*Green, Traill (\*1897) - - - - - Easton, Pa.  
President, 1876, 1881.
- 1893 Gregory, Louis L. - - - 514 Evanston Ave., Chicago, Ill.  
A.B. Beloit 1884; M.D. Northwestern Univ. (Chicago Med. Coll.) 1888.
- 1888 Grim, H. A. - - - - - Allentown, Pa.  
A.B. Penna. Coll. 1852; M.D. Univ. of Penna. 1855.
- 1892 Groff, Geo. G. - - - - - Lewisburg, Pa.  
B.S. West Chester State Normal School, 1874; M.D. Long Island Coll.  
Hosp., 1879; A.M. Lafayette, 1881.
- 1892 Grosvenor, J. W. - - - 118 Plymouth Ave., Buffalo, N. Y.  
A.B. Dartmouth 1859; M.D. Univ. City of N. Y. 1866.  
Vice-president, 1896.
- 1890 Gumbes, Chas. W. - - - - - Oaks, Pa.  
A.B. Univ. of Penn. 1861; M.D. Jefferson Med. Coll. 1864.
- 1889 Guthrie, J. Renwick - - - - - Dubuque, Ia.  
B.S. Lenox 1878; M.D. Univ. of Ia. 1884.
- 1884 Hadden, Alexander - - - 155 E. 51st, New York, N. Y.  
A.B. Union 1856; M.D. Columbia (Coll. P. and S.) 1859.
- 1892 Hahn, Henry H. - - - - - Youngstown, O.  
A.B. Univ. of Mich. 1875; M.D. Long Island Coll. Hosp. 1876.
- 1891 Halberstadt, Andrew H. - - - - - Pottsville, Pa.  
A.B. Marshall 1850; M.D. Univ. of Penna. 1853.

\* Deceased.

- 1888 Hale, Geo. W - - - 235½ N. Summer, Nashville, Tenn.  
A.B. Bowdoin 1869; M.D. Columbia (Coll. P. and S.) 1872.
- 1894 Hall, J. N - - - 308 Jackson Bldg., Denver, Colo.  
B.S. Boston Univ. 1878; M.D. Harvard 1882.  
Member of Council, 1897.  
Prof. Med. Gross Med. Coll.; Phys. to Arapahoe Co. and St. Anthony's Hospitals.
- 1896 Hall, Winfield S - - - 2431 Dearborn, Chicago, Ill.  
B.S. Northwestern Univ. 1886; M.D. Ibid. 1888; M.D. Univ. of Leipzig 1894; Ibid., Ph.D. 1895.  
Prof. Physiology Med. School, Northwestern Univ.
- 1882 Halsey, Calvin C - - - - - Montrose, Pa.  
A.B. Williams 1844; M.D. Castleton 1850.
- 1880 Ham, Albert E - - - 199 Benefit, Providence, R. I.  
A.B. Brown 1864; M.D. Columbia (Coll. P. and S.) 1867.
- 1901 Hamburger, Louis P - - 1412 Eutaw Place, Baltimore, Md.  
A.B. Johns Hopkins 1893; M.D. Ibid. 1897.
- 1899 Hamilton, Chas. S - - - 142 E. Long, Columbus, O.  
A.B. Princeton 1884; M.D. Columbus Med. Coll. 1887.
- 1877 \*Hamilton, Frank H (\*1886) - - - New York, N. Y.  
President, 1877.
- 1899 Hamilton, Wm. D - - - 142 E. Long, Columbus, O.  
A.B. Kenyon 1880; M.D. Columbus Med. Coll. 1883.
- 1894 Hammond, Wm. P - 47 Monument Sq., Charlestown, Mass.  
A.B. Amherst 1869; M.D. Harvard 1873.
- 1892 Hanna, W. M - - - - - Henderson, Ky.  
A.B. Centre 1858; M.D. Univ. of Louisville 1862.
- 1885 Hansell, Howard F - - 254 S. 16th, Philadelphia, Pa.  
A.B. Brown 1877; M.D. Jefferson Med. Coll. 1879.  
Member of Council, 1899.  
Clin. Prof. Ophthalmology Jefferson Med. Coll.; Prof. Diseases of the Eye Phila. Polyclinic.
- 1897 Hardie, Thomas M - - - 34 Washington, Chicago, Ill.  
A.B. Univ. Coll. of Toronto 1884; M.D. Univ. of Toronto 1888.
- 1891 Hare, Geo. A - - - - - Fresno, Cal.  
M.D. Univ. of Mich. 1887.
- 1882 Harlan, Geo. C - - - 1515 Walnut, Philadelphia, Pa.  
A.B. Delaware 1855; M.D. Univ. of Penna. 1858.  
Surgeon Will's Eye Hospital.
- 1899 Harlow Geo. A - - - New Insurance Bldg., Milwaukee, Wis.  
A.B. Amherst 1889; M.D. Harvard 1893.
- 1880 \*Harlow, Lewis D (\*1895) - - - Philadelphia, Pa.
- 1882 Harper, Thomas S - - Bingham House, Philadelphia, Pa.  
A.B. Univ. of Penna. 1840; M.D. Ibid. 1843.
- 1897 Harriman, Wilbert E - - - - - Ames, Ia.  
B.S. Ia. State Agricultural Coll. 1893; M.D. Jefferson Med. Coll. 1895.  
Prof. Pathology, Histology, and Physiology State Agricultural Coll.
- 1879 \*Harris, Elisha (\*1884) - - - - - New York, N. Y.
- 1891 \*Harris, Wm. H (\*1893) - - - - - Louisville, Ky.
- 1889 Harrison, Wallace K - - 52 Walton Place, Chicago, Ill.  
A.B. Yale 1874; M.D. Bennett Med. Coll. 1877, Coll. P. and S. Chicago 1882.

- 1889 Harsha, Wm. M - - - - 58 State, Chicago, Ill.  
A.B. Normal Univ., Lebanon, O., 1876; M.D. Northwestern Univ. (Chicago Med. Coll.) 1883.  
Prof. Operative and Clin. Surg. Coll. P. & S. Chicago (Med. Dept., Univ. of Ill)
- 1880 \*Hartley, Theophilus S - - - - Ridgeway, Pa.
- 1878 Harvey, Olin F - - - - Wilkes-Barre, Pa.  
A.B. Lafayette 1871; M.D. Univ. of Penna. 1873; A.M. Lafayette 1874.  
Surgeon City Hospital.
- 1884 Hatfield, Marcus P - - - - 70 State, Chicago, Ill.  
A.B. Wesleyan 1870; M.D. Northwestern Univ. (Chicago Med. Coll.) 1872.  
Emeritus Prof. Pediatrics Med. School, Northwestern Univ.
- 1878 \*Hatfield, Nathan - - - - Philadelphia, Pa.
- 1890 Haven, Alfred C - - - - Lake Forest, Ill.  
Ph.B. Syracuse 1877; M.D. Ibid. 1880.
- 1898 Haven, Foster S - - - - 143 W. 61st, New York, N. Y.  
A.B. Amherst 1883; M.D. Columbia (Coll. P. and S.) 1886.
- 1898 Hawkes, Forbes - - - - 42 E. 26th, New York, N. Y.  
A.B. Yale 1887; M.D. Columbia 1891.
- 1890 Hawkes, Wm. H - - - - 1317 Columbia Road, Washington, D. C.  
A.B. Brown 1867; M.D. Univ. of Penna. 1874.  
Prof. Materia Medica and Therapeutics Med. Dept., Georgetown Univ.;  
Consulting Physician Providence Hospital; on Staff Emergency Hospital.
- 1898 Hawkins, Thos. H - - - - 1740 Welton, Denver, Colo.  
M.D. Bellevue Hospital Med. Coll. 1873; LL.D. Coll. of the South West 1895.  
Prof. Gynecology, and Abdominal and Clinical Surgery, Gross. Med. Coll. and Dean.
- 1900 Hawley, D. C - - - - 204 Pearl, Burlington, Vt.  
A.B. Univ. of Vermont 1876; M.D. Ibid. 1884.
- 1897 Hay, Eugene C - - - - Hot Springs, Ark.  
A.B. Ky. Military Institute 1886; M.D. Univ. of Va. 1890.
- 1898 Hayes, Wm. Van V - - - - 10 E. 43rd, New York, N. Y.  
Ph.B. Bucknell 1888; M.D. Columbia 1893.
- 1901 Head, Geo. D - - - - 300 Walnut, S. E., Minneapolis, Minn.  
B.S. Univ. of Minnesota 1892; M.D. Ibid. 1895.
- 1893 Head, Louis R - - - - Madison, Wis.  
A.B. Univ. of Wisconsin 1882; M.D. Rush Med. Coll. 1885.
- 1888 Heath, Frederic C - - - - 19 W. Ohio, Indianapolis, Ind.  
A.B. Amherst 1878; M.D. Bowdoin 1884.
- 1889 Heffron, John L - - - - 528 S. Salina, Syracuse, N. Y.  
A.B. Madison Univ 1873; M.D. Syracuse 1881.  
Prof. Clin. Med. Med. Dept., Syracuse Univ.; Phys. House of Good Shepherd; Consult. Phys. Woman's and Children's Hosp., and House of Providence.
- 1900 Heidingsfeld, M. L - - - - 22 W. 7th, Cincinnati, O.  
Ph.B. Univ. of Mich. 1893; M.D. Univ. of Cincinnati (Med. Coll. of O.) 1895.
- 1888 \*Helm, Wm. H (\*1898) - - - - Sing Sing, N. Y.
- 1889 Hemenway, Henry B - - - - Evanston, Ill.  
A.B. Northwestern Univ. 1879; M.D. Ibid. 1881.
- 1888 Herbst, Henry H - - - - 28 N. 5th, Allentown, Pa.  
A.B. Muhlenberg 1878; M.D. Univ. of Penna. 1881.

\* Deceased.



- 1890 Herdman, Wm. J - - - 328 E. Huron, Ann Arbor, Mich.  
Ph.B. Univ. of Mich. 1872; M.D. Ibid. 1875. LL.D.  
Prof. Diseases of the Mind and Nervous System and Electrotherapeutics  
Univ. of Mich.
- 1889 Herrick, Fred. S - - - - - Brooklin, Me.  
A.B. Colby 1880; M.D. Bellevue Hosp. Med. Coll. 1884.
- 1889 \*Herrick, Henry J (\*1901) - - - - - Cleveland, O.
- 1880 Hershey, Geo. D - - - - 500 Broad, Providence, R. I.  
A.B. Brown 1869; M.D. Univ. City of N. Y. 1874.  
Librarian R. I. Med. Soc.; Surg. R. I. Hosp.; Consultant Dexter Asylum.
- 1898 Hershey, Edgar P - - - 408 California Bldg., Denver, Colo.  
C.E. Penna. Military Coll. 1881; M.D. Jefferson Med. Coll. 1888.
- 1899 Hertzler, Arthur E - - - - - Halstead, Kas.  
B.S. Southwestern Kansas Coll. 1890; M.D. Northwestern Univ. 1894.
- 1878 Heas, Robert J - - - 610 Fairmount Ave., Philadelphia, Pa.  
A.B. Lafayette 1867; A.M. Ibid. 1870; M.D. Univ. of Penna. 1871.
- 1898 Hessler, Robert - - - - - Logansport, Ind.  
A.B. Univ. of Indiana 1890; M.D. Med. Coll. of Indiana 1891.
- 1901 Hildreth, John L - - - 14 Garden, Cambridge, Mass.  
A.B. Dartmouth 1864; A.M. Ibid. 1867; M.D. Ibid. 1867; LL.D. Tufts 1900.
- 1888 Hill, Gershom H - - - - - Independence, Ia.  
A.B. Iowa Coll. 1871; M.D. Rush Med. Coll. 1874.  
Member of Council, 1888, 1889.  
Sup't State Hospital for the Insane.  
Lecturer on Insanity Med. Dept., Univ. of Iowa.
- 1888 Hill, Horace B - - - - - Augusta, Me.  
A.B. Bowdoin 1873; M.D. Long Island Coll. Hosp. 1880.  
Assist't Supt. Me. Insane Asylum.
- 1897 \*Hill, Horace G (\*1901) - - - - Philadelphia, Pa.
- 1896 Hinsdale, Guy - - - - 3943 Chestnut, Philadelphia, Pa.  
A.B. Amherst 1878; M.D. Univ. of Penna. 1881.  
Phys. Presbyterian Orphanage and Out-Patient Dept., Presbyterian  
Hosp.; Sec'y American Climatological Assoc.
- 1888 \*Hitchcock, Alfred (\*1900) - - - - Farmington, Me.
- 1888 Hitchcock, Chas. W - - - - 29 Henry, Detroit, Mich.  
A.M. Univ. of Mich. 1889; M.D. Detroit Med. Coll. 1885.  
Member of Council, 1892.  
Assist. to Chair of Nervous Diseases Detroit Coll. of Med.
- 1888 Hitchcock, Edward, Jr. - - - - Ithaca, N. Y.  
A.B. Amherst 1878; M.D. Dartmouth 1881.  
Vice-president, 1889.  
Prof. Physical Culture and Hygiene, and Director of the Gymnasium,  
Cornell Univ.
- 1888 \*Hitchcock, Francis E (\*1896) - - - - Rockland, Me.
- 1881 \*Hodgdon, Richard L (\*1893) - - - - Arlington, Mass.
- 1878 \*Hodge, H. Lenox (\*1881) - - - - Philadelphia, Pa.
- 1898 Hoff, John Van R - - - - - U. S. A.  
A.B. Union 1871; M.D. Ibid. 1874.  
Major and Surgeon U. S. A.

\* Deceased.

- 1884 Holland, James W - - 2006 Chestnut, Philadelphia, Pa.  
A.B. Univ. Public School of Louisville 1865; M.D. Jeff. Med. Coll. 1868.  
Prof. Medical Chemistry and Toxicology Jeff. Med. Coll. and Dean of the  
Faculty.
- 1897 Hollopeter, Wm. C - - 1428 N. Broad, Philadelphia, Pa.  
B.S. Bucknell 1874; M.D. Univ. of Penna. 1877; A.B. Bucknell 1881.  
Clin. Prof. Children's Diseases Medico-Chirurgical Coll.
- 1897 Holmes, A. Mansfield - - 205 Jackson Block, Denver, Colo.  
A.B. Franklin, O., 1883; M.D. Coll. P. and S. of Baltimore 1885.
- 1893 Holmes, Bayard - - 104 E. 40th, Chicago, Ill.  
M.D. Northwestern Univ. 1888.  
Member of Council, 1893.  
Sec'y Assoc. Am. Med. Colleges; Senior Prof. Principles of Surgery  
Coll. of P. and S.
- 1882 \*Holmes, Edward L. (\*1900) - - - - Chicago, Ill.
- 1882 Hopkins, Geo. G - - 350 Washington Ave., Brooklyn, N. Y.  
A.B. Hobart 1862; M.D. Univ. of Penna. 1868.
- 1888 Hough, Garry de N - - 542 County, New Bedford, Mass.  
A.B. Harvard 1881; M.D. Bellevue Hosp. Med. Coll. 1884.
- 1891 House, Chas. F - - - - Painesville, O.  
A.B. Western Reserve 1871; M.D. Long Island Coll. Hosp. 1874.
- 1882 \*How, Lyman B (\*1893) - - - - Manchester, N. H.
- 1890 Hubbard, Wm. N - - - - 17 E. 38th, New York, N. Y.  
A.B. Williams 1883; M.D. Columbia (Coll. P. and S.) 1886.  
Phys. Bellevue Hosp., (Out-Door Dept. ;) Assis't Surg. Manhattan Eye  
and Ear Hosp. (Throat Dept.)
- 1889 Hubbell, Chas. L - - - - Williamstown, Mass.  
A.B. Williams 1846; M.D. Berkshire Med. Coll., 1849.
- 1885 Huger, Wm. H - - - - Charleston, S. C.  
A.B. So. Carolina Coll. 1846; M.D. Med. Coll. of South Carolina 1849.
- 1901 Humer, Guy L - - Johns Hopkins Hosp., Baltimore, Md.  
B.S. Univ. of Wisconsin, 1893; M.D. Johns Hopkins 1897.
- 1888 Hunt, Chas. O - - - - Portland, Me.  
A.B. Bowdoin 1861; M.D. Univ. of Penna. 1868.  
Supt., Me. Gen. Hosp.; Prof. Materia Medica and Therapeutics Med.  
Dept., Bowdoin Coll.; Instructor Materia Medica and Therapeutics  
Portland Sch. for Med. Instruction.
- 1888 \*Hunt, Henry H (\*1894) - - - - Portland, Me.
- 1889 Hunter, Charles H - - 12 Syndicate Block, Minneapolis, Minn.  
A.B. Bowdoin 1874; M.D. Columbia 1878.  
Prof. Theory and Practice of Med. Coll. of Med. and Surgery, Univ. of  
Minn.
- 1890 Hurd, Arthur W - - - - Buffalo, N. Y.  
A.B. Knox 1880; M.D. Columbia (Coll. P. and S.) 1883.  
Supt. State Hospital for the Insane.
- 1889 Hurd, Henry M - - - - Baltimore, Md.  
A.B. Univ. of Mich. 1863; M.D. Ibid. 1866.  
Vice-president, 1890; President, 1895.  
Supt. Johns Hopkins Hosp.; Prof. Psychiatry Johns Hopkins Med.  
School.
- 1878 Hutchins, Alexander - - 796 DeKalb Ave., Brooklyn, N. Y.  
A.B. Williams 1857; M.D. New York Med. Coll. 1860; A.M. Williams  
1867.

\* Deceased

- 1890 Hutchinson, Woods - - - - - Buffalo, N. Y.  
A.B. Penn Coll. (Iowa) 1880; M.D. Univ. of Mich. 1884.  
Vice-president, 1895.  
Prof. Comparative Pathology and Embryology Med. Dept., Univ. of Buffalo.
- 1884 Hyde, James W - - - - - 100 State, Chicago, Ill.  
A.B. Yale 1861; M.D. Univ. of Penna. 1869.
- 1890 Irish, John C . . . . . 219 Central, Lowell, Mass.  
A.B. Dartmouth 1868; M.D. Bellevue Hosp. Med. Coll. 1872.
- 1879 \*Irwin, Crawford (\*1900) . . . . . Hollidaysburg, Pa.
- 1888 Isham, Geo. S . . . . . 64 Bellevue Pl., Chicago, Ill.  
A.B. Yale 1881; M.D. Northwestern Univ. (Chicago Med. Coll.) 1884.
- 1889 \*Jackson, A. Reeves (\*1892) . . . . . Chicago, Ill.
- 1882 Jackson, Edward . . . . . McPhee Bldg., Denver, Colo.  
C.E. Union 1874; M.D. Univ. of Penna. 1878.  
Member of Council, 1897; President, 1898.
- 1900 Jackson, John H . . . . . Fall River, Mass.  
A.B. Colby 1860; M.D. Bowdoin 1868.
- 1889 Jacobs, Luther D . . . . . Emporia, Kas.  
A.B. Penna. Coll. 1863; M.D. Univ. of Penna. 1866.
- 1884 \*Jaggard, Wm. W. (\*1896) . . . . . Chicago, Ill.
- 1892 Jenkins, Wilbur O . . . . . 14 S. 7th, Terre Haute, Ind.  
A.B. Moore's Hill Coll. 1881; M.D. Univ. of Cincinnati (Med. Coll. of O.) 1884.
- 1886 Jennings, Samuel D . . . . . Sewickley, Pa.  
A.B. Jefferson 1864; M.D. Jefferson Med. Coll. 1868.
- 1878 Jewett, Chas . . . . . 330 Clinton Ave., Brooklyn, N. Y.  
A.B. Bowdoin 1864; A.M. Ibid. 1867; M.D. Columbia (Coll. P. & S.) 1871.
- 1894 Jewett, Chas. S . . . . . 892 Main, Buffalo, N. Y.  
Ph.B. Yale 1887; M.D. Columbia (Coll. P. & S.) 1890.  
Phys. Erie Co. Hosp.
- 1888 §Johnson, Anna H . . . . .  
A.B. Vassar 1877; M.D. Woman's Med. Coll. of Penna. 1881.
- 1898 Johnson, Frank M . . . . . 117 Beacon, Boston, Mass.  
A.B. Amherst 1879; M.D. Harvard 1882.
- 1884 Johnson, Frank S . . . . . 2521 Prairie Ave., Chicago, Ill.  
A.B. Northwestern Univ. 1878; M.D. Ibid. (Chicago Med. Coll.) 1881.  
Prof. Med. & Clin. Med. Med. Sch. Northwestern Univ. Dean of Faculty.
- 1897 Johnson, Geo. W . . . . . 733 Grace, Chicago, Ill.  
B.S. Cornell 1892; M.D. Coll. P. & S. (Chicago) 1895.
- 1884 \*Johnson, Hosmer A . . . . . Chicago, Ill.  
Member of Council, 1888, 1889.
- 1892 Johnson, John G . . . . . 493 Woodward Ave., Detroit, Mich.  
A.B. Jefferson 1863; M.D. Univ. of Heidelberg 1869.
- 1882 Johnson, Joseph Tabor . . . . . 1728 K, N. W., Washington, D. C.  
M.D. Georgetown Univ. 1865; M.D. Bellevue Hosp. Med. Coll. 1867; A.M. Columbia Univ. 1869.  
Member of Council, 1885, 1890.
- 1888 Johnson, Russell H . . . . . Summit, Chestnut Hill, Phila., Pa.  
A.B. Princeton 1868; M.D. Univ. of Penna. 1871.

\* Deceased

§ Present whereabouts unknown.

- 1897 Johnson, Woodbridge O . . . . . Fu San, Korea.  
A.B. Lafayette 1891; M.D. Univ. of Penna. 1895.  
Medical Missionary Presbyterian Board.
- 1895 \*Johnston, R. Erskine (\*1901) . . . . . Danville, Pa.
- 1889 Johnstone, A. W . . . . . Danville, Ky.  
A.B. Centre Coll. 1872; M.D. Univ. of the City of N. Y. 1876.
- 1889 Jones, C. George . . . . . Jacksonville, Ill.  
A.B. Illinois Coll. 1854; M.D. Washington Univ. (St. Louis Med. Coll.) 1888.
- 1899 Jones, Harry H . . . . . 626 E. Market, York, Pa.  
A.B. Penna. Coll. 1892; M.D. Univ. of Penna. 1896.
- 1899 Jones, Howard . . . . . Circleville, O.  
A.B. Hobart 1875; M.D. Univ. of Cincinnati (Med. Coll. of Ohio) 1877.
- 1880 Jones, H. Webster . . . . .  
A.B. Yale 1855; M.D. Yale 1858; A.M. Yale 1860.
- 1880 \*Jones, Samuel J. (\*1901) . . . . . Chicago, Ill.  
Vice-president, 1885, 1886. President, 1889.
- 1897 \*Jordan, James R. (\*1898) . . . . . Montgomery, Ala.
- 1889 Joy, Henry L . . . . . Marshall, Mich.  
A.B. Union 1844; M.D. Jefferson Med. Coll. 1849.
- 1900 Joy, J. Addison . . . . . Atlantic City, N. J.  
A.B. Amherst 1878; M.D. Univ. of Penna. 1884.
- 1878 Judson, Adoniram B . . . . . 1 Madison Ave., New York, N. Y.  
A.B. Brown 1859; M.D. Jefferson Med. Coll. 1865; M.D. Columbia (Coll. P. & S.) 1868.  
Orthopedic Surgeon New York Hosp. (Out-patient Dept.).
- 1886 Kearns, W. D . . . . . 1734 Penn Ave., Pittsburg, Pa.  
A.B. Jefferson 1851; M.D. Univ. of the City of N. Y. 1857.
- 1879 Kedzie, Robert C . . . . . Agricultural College, Mich.  
A.B. Oberlin 1847; M.D. Univ. of Mich. 1851; A.M. Oberlin 1865.
- 1899 Keen, Wm. W . . . . . 1729 Chestnut, Philadelphia, Pa.  
A.M. Brown 1859; M.D. Jefferson Med. Coll. 1862; LL.D. Brown 1881.  
President American Med. Assoc., 1899-1900; Prof. Principles of Surgery and Clinical Surgery Jefferson Med. Coll.; Surgeon Jefferson Med. Coll. and Orthopedic Hosps.; Consultant St. Agnes' and Woman's Hosps.
- 1895 Keene, Geo. F . . . . . Cranston, Howard P. O., R. I.  
A.B. Brown 1875; M.D. Harvard 1879.
- 1891 \*Keeney, James F. (\*1894) . . . . . U. S. N.
- 1892 Kelley, Richmond . . . . . First and Jefferson, Portland, Ore.  
A.B. Willamette, 1879; M.D. Miami Med. Coll. 1884.
- 1894 Kellogg, E. Wells . . . . . 420 Mitchell, Milwaukee, Wis.  
B.S. Carleton 1885; M.D. Rush Med. Coll. 1889.
- 1900 Kelly, A. O. J . . . . . 1911 Pine, Philadelphia, Pa.  
A.B. LaSalle, Phila. 1888; M.D. Univ. of Penna. 1891.
- 1883 Kemper, Andrew C . . . . . 303 Broadway, Cincinnati, O.  
A.B. Centre Coll. 1855; M.D. Univ. of Louisville 1866.
- 1889 Kennedy, Josiah F . . . . . State House, Des Moines, Ia.  
A.B. Dickinson 1855; M.D. Univ. of the City of N. Y. 1858.  
Secretary State Board of Health.
- 1884 \*Kerr, James W . . . . . York, Pa.

\* Deceased.

§ Present whereabouts unknown.

- 1889 Kessel, Geo . . . . . Cresco, Ia.  
A.B. Iowa Coll. 1883; M.D. Rush Med. Coll. 1888.
- 1876 \*Keyser, Peter D. (\*1897) . . . . . Philadelphia, Pa.  
Secretary *pro tem.*, 1876. Member of Council, 1877, 1878, 1880. Vice-president, 1879, 1888.
- 1898 Kickland, Wm. A . . . . . Fort Collins, Colo.  
B.S. Univ. of Mich. 1892; M.D. Ibid. 1896.
- 1889 Kidder, F. Thomas . . . . . Woodstock, Vt.  
A.B. Univ. of Vt. 1880; M.D. Ibid. 1883.
- 1893 Kiefer, Guy L . . . . . 497 St. Antoine, Detroit, Mich.  
A.B. Univ. of Mich. 1887; M.D. Ibid. 1891.  
Lecturer on Hygiene Detroit Coll. of Med.
- 1890 Kiefer, Hermann . . . . . 89 E. Forest Ave., Detroit, Mich.  
Gymnasium at Karlsruhe, Baden, 1844; License of "Sanitäts Committee," Baden, 1849.  
Regent of Univ. of Mich.
- 1877 \*Kieffer, Stephen B . . . . . Carlisle, Pa.
- 1889 \*Kimball, Arthur H. (\*1894) . . . . . Battle Creek, Mich.
- 1888 Kinch, Chas. A . . . . . 285 W. 70th, New York, N. Y.  
A.B. Coll. of the City of N. Y. 1870; M.D. Columbia (Coll. P. & S.) 1873.
- 1889 King, Alfred . . . . . 610 Congress, Portland, Me.  
A.B. Colby 1883; M.D. Bowdoin, 1886.  
Instructor Surgery Portland Sch. for Med. Instruction; Demonstrator Anatomy Med. Dept. Bowdoin Coll.,
- 1899 King, Wm. H . . . . . 412 S. 15th, Philadelphia, Pa.  
A.B. Princeton 1889; M.D. Jefferson 1894.
- 1899 Kinsman, David N . . . . . 255 E. Long, Columbus, O.  
M.D. Med. Coll. of O. 1863.
- 1886 Kline, W. J. K . . . . . Greensburg, Pa.  
A.B. Jefferson 1860; M.D. Long Island Coll. Hosp. 1863.
- 1892 Knapp, Chas. P . . . . . Wyoming, Pa.  
M.D. Bellevue Hosp. Med. Coll. 1877; Ph.B. Lafayette (Nunc pro tunc) 1879.  
Pathologist Wilkes-Barre City Hospital.
- 1898 Knight, C. A . . . . . Peeksville, N. Y.  
A.B. Yale 1887; M.D. Univ. of the City of N. Y. 1890.
- 1889 Knight, Chas. H . . . . . 147 W. 57th, New York, N. Y.  
A.B. Williams 1871; M.D. Columbia (P. & S.) 1874.  
Prof Laryngology Med. Coll., Cornell Univ.; Surgeon to Manhattan Eye and Ear Hosp. (Throat Dept.).
- 1897 Knopf, S. A . . . . . 16 W. 95th, New York, N. Y.  
M.D. Bellevue Hosp. Med. Coll. 1888; M.D. Univ. of Paris 1895.
- 1888 \*Knox, James S. (\*1892) . . . . . Chicago, Ill.
- 1893 Knox, Samuel B. P . . . . . Santa Barbara, Cal.  
A.B. Allegheny 1860; M.D. Univ. of Penna. 1866.
- 1884 \*Kollock, Cornelius (\*1897) . . . . . Cheraw, S. C.
- 1889 Kreider, Geo. N . . . . . 522 Capitol Ave., Springfield, Ill.  
A.B. Ohio Wesleyan Univ. 1877; M.D. Univ. of the City of N. Y. 1880.
- 1897 Kunkel, Geo. B . . . . . Harrisburg, Pa.  
B.S. Penna. Coll. 1890; M.D. Univ. of Penna. 1893.

\* Deceased.

- 1899 Kyle, D. Braden . . . . . 1517 Walnut, Philadelphia, Pa.  
M.D. Jefferson Med. Coll. 1891.  
Clin. Prof. Laryngology and Rhinology Jeff. Med. Coll.
- 1889 Kynett, Harold H . . . . . 1728 Spring Garden, Philadelphia, Pa.  
A.B. Wesleyan 1883; M.D. Univ. of Penna. 1886.
- 1896 \*Lackersteen, Mark H. (\*1897) . . . . . Chicago, Ill.
- 1898 LaForce, Wm. B . . . . . Ottumwa, Ia.  
Ph.B. Univ. of Ia. 1890; M.D. Northwestern Univ. 1891.
- 1882 \*Landis, Henry G . . . . . Columbus, O.
- 1889 Landon, Henry B . . . . . 6 Fay Block, Bay City, Mich.  
A.B. Univ. of Mich. 1861; M.D. Ibid. 1865.
- 1892 Lansing, James B. W . . . . . Tenafly, N. J.  
M.D. Columbia (Coll. P. & S. of N. Y.) 1885.
- 1890 Laplace, Ernest . . . . . 1828 S. Rittenhouse Sq., Phila., Pa.  
A.B. Georgetown Univ. 1879; M.D. Tulane Univ. 1884.  
Prof. Surg. & Clin. Surg. Medico-Chirurgical College.
- 1876 \*Larison, Geo. H. (\*1892) . . . . . Lambertville, N. J.  
Vice-president, 1876, 1878; Member of Council 1881.
- 1891 Lash, Josiah W . . . . . 19 S. Paint, Chillicothe, O.  
A.B. Ohio Univ. 1875; M.D. Columbus Med. Coll. 1878.
- 1879 Lathrop, Horace . . . . . Cooperstown, N. Y.  
A.B. Hamilton 1846; A.M. Ibid. 1849; M.D. Jefferson Med. Coll. 1852; Ph.D.  
Hamilton 1866.  
Vice-president 1880.
- 1897 Lathrop, Ruth Webster . . . . . Care Woman's Med. Coll., Phila., Pa.  
A.B. Wellesley 1883; M.D. Woman's Med. Coll. of Penna. 1891.  
Alumnae Traveling Fellowship of the Woman's Med. Coll. of Penna.
- 1901 Leach, Sydney . . . . . Tuscaloosa, Ala.  
B.S. Ala. Polytechnic 1894; M.D. Univ. of Va. 1896.
- 1879 Leaman, Henry . . . . . 832 N. Broad, Phila., Pa.  
A.B. Franklin & Marshall 1859; M.D. Jefferson Med. Coll. 1864; A.M. Frank-  
lin and Marshall 1879.
- 1888 Learned, Wm. T . . . . . 422 Franklin, Fall River, Mass.  
A.B. Brown 1882; M.D. Univ. of Penna. 1885.
- 1877 Lee, Benjamin . . . . . 1420 Chestnut, Phila., Pa.  
A.B. Univ. of Penna. 1852; A.M. Ibid. 1855; M.D. N. Y. Med. Coll. 1857; Ph.D.  
Univ. of Penna. 1878.  
Vice-president 1877; Member of Council 1882; President 1883.  
Secretary State Board of Health.
- 1880 Lee, Chas. C. (\*1893) . . . . . New York, N. Y.  
Vice-president, 1881.
- 1890 Lee, Elmer . . . . . 127 W. 58th, New York, N. Y.  
A.B. Ohio Wesleyan Univ. 1877; M.D. Missouri Med. Coll. 1882.  
Vice-president 1896.
- 1901 Le Levre, Egbert . . . . . 52 W. 56th, New York, N. Y.  
A.B. Rutgers 1880; M.D. Univ. of the City of N. Y. 1883; A.M. Rutgers 1884.
- 1894 Leffmann, Henry . . . . . 119 S. 4th, Phila., Pa.  
M.D. Jefferson Med. Coll. 1869.  
Prof. Chemistry Phila. Polyclinic & Woman's Med. Coll.; Pathologic Chem-  
ist, Jeff. Med. Coll. Hosp.

\* Deceased.

- 1901 Leighton, Chas. M . . . . . 365 Congress, Portland, Me.  
A.B. Bowdoin 1894; M.D. Ibid. 1897.
- 1894 Leland, Geo. A . . . . . 669 Boylston, Boston, Mass.  
A.B. Amherst 1874; M.D. Harvard 1878.  
Prof. Laryngology & Otology Med. Sch., Dartmouth Coll.
- 1879 \*Lente, Frederick D . . . . . New York, N. Y.  
President, 1879.
- 1888 Lester, John C . . . . . 119 Schermerhorn, Brooklyn, N. Y.  
A.B. Dartmouth 1877; M.D. Long Island Coll. Hosp. 1879.
- 1884 \*Levis, Richard J. (\*1890) . . . . . Philadelphia, Pa.
- 1893 Lewis, A. B . . . . . Hamilton, Kas.  
A.B. Butler Univ. 1879; M.D. Med. Coll. of Indiana 1882.
- 1889 Lewis, Chas. H . . . . . 301 First, Jackson, Mich.  
A.B. Univ. of Mich. 1862; M.D. Ibid. 1866.
- 1890 Lewis, Daniel . . . . . 252 Madison Ave., New York, N. Y.  
A.B. Alfred Univ. 1869; M.D. Columbia (Coll. P. & S.) 1871.  
President State Board of Health.
- 1887 Lewis, Edwin R . . . . . 131 N. Meridan, Indianapolis, Ind.  
A.B. Amherst 1861; M.D. Harvard 1867.
- 1897 Lewis, Henry F . . . . . 4426 Lake Ave., Chicago, Ill.  
A.B. Harvard 1885; M.D. Ibid. 1888.
- 1891 Lewis, James R . . . . . Grinnell, Ia.  
A.B. Iowa Coll. 1882; M.D. Bellevue Hosp. Med. Coll. 1885.
- 1897 Lichty, John A . . . . . 4634 5th Ave., Pittsburg, Pa.  
Ph.B. Mt. Union Coll. 1890; M.D. Univ. of Penna. 1893.
- 1901 Light, Gertrude U . . . . . 137 W. 45th, New York, N. Y.  
B.S. Univ. of Wisconsin 1894; M.D. Johns Hopkins 1898.
- 1881 \*Lincoln, Nathan S. (\*1898) . . . . . Washington, D. C.  
Member of Council 1886.
- 1883 \*Lincoln, Rufus P. (\*1900) . . . . . 22 W. 31st, New York, N. Y.  
Vice-president 1894.
- 1877 \*Lindsley, J. Berrien (\*1897) . . . . . Nashville, Tenn.  
Vice-president 1887.
- 1890 Lippincott, J. Aubrey . . . . . 435 Penn Ave., Pittsburg, Pa.  
A.B. Dalhousie Coll. 1867; M.D. Jefferson Med. Coll. 1873.
- 1882 \*Little, Wm. S . . . . . Philadelphia, Pa.
- 1893 Littlefield, George H . . . . . Syracuse, Neb.  
A.B. Dartmouth 1871; M.D. Univ. of Mich. 1878.
- 1897 Loeb, Hanau W . . . . . 3559 Olive, St. Louis, Mo.  
A.B. Univ. of Missouri 1883; M.D. Coll. P. & S. N.Y. (Columbia) 1888.
- 1885 Logan, Henry V . . . . . 306 N. Washington Ave., Scranton, Pa.  
A.B. Lafayette 1876; M.D. Univ. of Penna. 1880.
- 1893 Longsdorf, Harold H . . . . . Dickinson, Pa.  
A.B. Dickinson 1879; M.D. Coll. P. & S. Baltimore 1882.
- 1897 Lott, Wm. C . . . . . 4001 Walnut, Phila., Pa.  
A.B. Brown 1882; M.D. Univ. of Penna. 1885.
- 1878 \*Love, John J. H (\*1897) . . . . . Montclair, N. J.
- 1896 Ludlow, Edmund . . . . . Paxton, Ill.  
A.B. Northwestern Univ. 1892; M.D. Ibid. 1895.

\* Deceased.

- 1881 Lyman, Henry M . . . . . 70 State, Chicago, Ill.  
A.B. Williams 1858; M.D. Coll. P. & S. of Illinois 1861.  
Vice-president 1891.
- 1879 Lyons, Frederick A . . . . . 50 E. 63rd, New York, N. Y.  
A.B. Coll. City of N. Y. 1873; A.M. Ibid. 1876; M.D. Coll. P. & S. N. Y.  
(Columbia) 1876.
- 1884 McArdle, Thos. E . . . . . 707 12th, N. W., Washington, D. C.  
A.M. St. Mary's Univ. 1879; M.D. Univ. of Georgetown 1879.  
Prof. Minor Surgery Medical School, Columbian Univ.
- 1901 McBride, James H . . . . . Pasadena, Cal.  
M.D. Bellevue Hosp. Med. Coll. 1873.
- 1881 \*McBride, Thos. A . . . . . New York, N. Y.
- 1889 McCaskey, Geo. W . . . . . 107 W. Main, Fort Wayne, Ind.  
Ph.B. Asbury Univ. 1881; M.D. Jefferson Med. Coll. 1877.  
Prof. Disease of the Nervous System and Clinical Med. Fort Wayne Coll.
- 1897 McClintock, Chas. T . . . . . 270 Woodward Ave., Detroit, Mich.  
A.B. Ky. Wesleyan Coll. 1881; M.D. Univ. of Mich. 1894.  
Vice-president, 1900.  
Lecturer on Bacteriology Detroit Coll. of Med.
- 1888 McCollister, Elisha A . . . . . Lewiston, Me.  
A.B. Bates 1879; M.D. Bowdoin 1882.
- 1894 McCulloch, C. Carter . . . . . Care of War Dept., Washington, D. C.  
A.B. Baylor Univ. 1885; M.D. Univ. of Virginia 1891.  
Captain and Assist. Surg. U. S. A.
- 1892 McCulloch, J. T . . . . . Freeport, Pa.  
A.B. Wooster Univ. 1874; M.D. Jefferson Med Coll. 1877.
- 1898 McDonnell, Ralph A . . . . . 1142 Chapel, New Haven, Conn.  
A.B. Yale 1890; M.D. Yale 1892.  
Instructor in Dermatology and Materia Medica Dept. of Med., Yale Univ.
- 1901 McDonough, Edward J . . . . . 624 Congress, Portland, Me.  
A.B. Holy Cross 1889; M.D. Bowdoin 1892.
- 1901 McGaughey, Hugh F . . . . . 216 Centre, Winona, Minn.  
B.S. Univ. of Mich. 1893; M.D. Columbia 1896.
- 1877 McIntire, Chas . . . . . 52 N. 4th., Easton, Pa.  
A.B. Lafayette 1868; A.M. Ibid. 1871; M.D. Univ. of Penna. 1873.  
Assistant Secretary 1878-89; Secretary 1890-; Treasurer 1893-;  
Lecturer Sanitary Science Lafayette College.
- 1888 McKennan, T. M. T . . . . . 810 Penn Ave., Pittsburg, Pa.  
A.B. Washington & Jefferson, 1879; M.D. Univ. of Penna. 1882.  
Prof. Anatomy Med. Dept., Western Univ. of Penna.
- 1878 McKenzie, Wm . . . . . Conshohocken, Pa.  
A.B. Lafayette 1866; A.M. Ibid. 1869; M.D. Univ. of Penna. 1871.
- 1890 McLaren, Archibald . . . . . 326 Wabash, St. Paul, Minn.  
B.S. Princeton 1880; M.D. Coll. P. & S. N. Y. (Columbia) 1883.  
Clinical Prof. of Women Coll. Med. and Surgery, Univ. of Minn.
- 1884 McMurtry, Louis S . . . . . Louisville, Ky.  
A.B. Centre Coll. of Ky. 1870; M.D. Univ. of Louisiana 1873.  
Vice-president 1891.
- 1893 McNutt, H. E . . . . . Aberdeen, S. D.  
A.B. Dartmouth 1869; M.D. Ibid. 1871.
- 1892 McWilliams, Samuel A . . . . . 3456 Michigan Ave., Chicago, Ill.  
A.B. Univ. of Mich. 1864; M.D. Chicago Med. Coll. 1866.

\* Deceased.



- 1889 \*MacDonnell, R. Lea (\*1891) . . . . . Montreal, Canada.  
 1901 \*Machan, George Stover (\*1901) . . . . . Providence, R. I.  
 1898 MacLaren, Wm. S . . . . . Litchfield, Conn.  
 A.B. Princeton 1886; M.D. Columbia 1889.  
 1900 Magill, Wm. S . . . . . 1272 Boston Road, New York.  
 A.B. Amherst 1887; M.D. Univ. of Paris (France), 1894.  
 1887 Magruder, Geo. L . . . . . 815 Vermont Ave., N. W., Washington, D. C.  
 A.B. Gonzago Coll. 1867; M.D. Georgetown Univ. 1870.  
 1889 ‡Major, Geo. W . . . . .  
 A.B. McGill 1870; M.D. Ibid. 1871.  
 1897 Makuen, G. Hudson . . . . . 1419 Walnut, Phila., Pa.  
 A.B. Yale 1884; M. D. Jefferson Med. Coll. 1889.  
 President, 1899.  
 Prof. Defects of Speech Phila. Polyclinic; Laryngologist St. Mary's Hos-  
 pital; Consultant (Defects of Speech) N. J. Training School for Feeble-  
 Minded.  
 1887 Manges, Morris . . . . . 941 Madison Ave., New York, N. Y.  
 A.B. Coll. of the City of N. Y. 1884; M.D. Columbia, 1887.  
 1889 Marble, John O . . . . . 55 Pearl, Worcester, Mass.  
 A.B. Colby 1863; M.D. Georgetown Univ. 1868.  
 Consultant City Hosp.  
 1897 Marchand, Jacob F . . . . . 133 N. Cleveland Ave., Canton, O.  
 A.B. Washington & Jefferson 1882; M.D. Univ. of Penn. 1887.  
 1879 Marcy, Henry O . . . . . 180 Commonwealth Ave., Boston, Mass.  
 M.D. Harvard 1864; A.M. Amherst 1870.  
 Vice-president, 1880; President, 1882.  
 1900 Marcy, H. O., Jr . . . . . 180 Commonwealth Ave., Boston, Mass.  
 A.B. Harvard 1893; M.D. Ibid. 1897.  
 1889 Marshall, Cuvier R . . . . . 2243 N. 17th, Phila., Pa.  
 A.B. Lafayette 1881; M.D. Bellevue Hosp. Med. Coll. 1885.  
 1889 Marshall, George M . . . . . 1819 Spruce, Phila., Pa.  
 A.B. Adelbert, 1883; M.D. Univ. of Penna. 1886.  
 Laryngologist Phila. Hosp.; Physician and Laryngologist St. Joseph's Hosp.  
 1885 Marshall, George W . . . . . Milford, Del.  
 A.B. Delaware Coll. 1874; M.D. Jefferson Med. Coll. 1876.  
 1899 Marshall, John S . . . . . Presidio, San Francisco, Cal.  
 M.D. Univ. of Syracuse 1876.  
 1895 Martin, Francis C . . . . . Roxbury Station, Boston, Mass.  
 A.B. Harvard 1879; M.D. Ibid. 1883.  
 1891 Martin, James N . . . . . Ann Arbor, Mich.  
 Ph.B. Hillsdale 1880; M.D. Univ. of Mich. 1883.  
 Prof. Obstetrics and Diseases of Women Univ. of Mich. 1883.  
 1885 Maryott, E. Edgar, . . . . . 92 Main, Springfield, Mass.  
 A.B. Brown 1870; M.D. Albany Med. Coll. 1882.  
 1891 Mason, Jarvis K . . . . . Suffield, Conn.  
 A.B. Yale 1855; M.D. Harvard 1861.  
 1888 Mason, Wm. C . . . . . Bangor, Me.  
 A.B. Harvard 1874; M.D. Ibid. 1878.  
 1895 Massie, Joseph P . . . . . 17 E. Grace, Richmond, Va.  
 A.B. Richmond Coll. 1887; M.D. Univ. of Virginia, 1888.

\* Deceased.

‡ Present whereabouts unknown.

- 1889 §Matthews, F. M . . . . .  
 1897 Mathews, George S . . . . . 419 Cranston, Providence, R. I.  
 A.B. Brown 1885; M.D. Univ. of Penna. 1888.  
 1879 Matthewson, Arthur . . . . . 139 Montague, Brooklyn, N. Y.  
 A.B. Yale 1858; M.D. Univ. of the City of New York 1861; A.M. Yale 1865.  
 1890 Matzinger, Herman G . . . . . Buffalo, N. Y.  
 A.B. Calvin Coll. 1880; M.D. Univ. of Buffalo 1884.  
 Lecturer Clinical Pathology Med. Dept., Univ. of Buffalo.  
 1890 Maurer, J. M. . . . . 502 E. Sunbury, Shamokin, Pa.  
 A.B. Lafayette 1884; M.D. Univ. of Penna. 1887.  
 1897 May, Chas. H . . . . . 622 Madison Ave., New York, N. Y.  
 A.B. Coll. City of New York 1876; M.D. Columbia (Coll. P. & S.) 1883.  
 Prof. Diseases of Eye & Ear Coll. P. & S. (Boston); Chief of Clinic, Eye Dept.,  
 Vanderbilt Clinic; Adj. Ophthalmic Surg. Mt. Sinai Hosp.  
 1890 Mayberry, Chas. B . . . . . Retreat, Pa.  
 A.B. Tufts 1883; M.D. Harvard 1887.  
 Phys. Hosp. for Insane.  
 1899 Medbery, Josiah . . . . . 31 E. Chestnut, Columbus, O.  
 A.B. Brown 1875; M.D. Columbus Med. Coll. 1878.  
 1877 Meisenholder, Edmund W . . . . . 320 W. Market, York, Pa.  
 A.B. Penna. Coll. 1864; A.M. Ibid. 1867; M.D. Jefferson Med. Coll. 1868.  
 Gynecologist City Hosp.  
 1889 Merriman, Henry P . . . . . 2239 Michigan Ave., Chicago, Ill.  
 A.B. Beloit 1863; M.D. Chicago Med. Coll. 1865.  
 1889 Merritt, Emma S . . . . . 2323 Washington, San Francisco, Cal.  
 A.B. Vassar 1877; M.D. Univ. of Cal. 1881; L'École de Médecin Paris 1887.  
 1892 Merz, Chas. H . . . . . Sandusky, O.  
 A.B. Wooster 1883; M.D. Ibid. 1885.  
 1898 Metcalf, Henry S . . . . . Mt. Carroll, Ill.  
 A.B. Beloit 1879; M.D. Northwestern Univ. 1886.  
 1891 Mettler, L. Harrison . . . . . 4228 Greenwood Ave., Chicago, Ill.  
 A.B. Coll. of the City of N. Y. 1883; M.D. Jefferson Med. Coll. 1886.  
 Prof. of the Physiology of the Nervous System Coll. P. & S.  
 1892 \*Meyer, J. M. (\*1901) . . . . . Danville, Ky.  
 1890 Mial, Leonidas L . . . . . 145 W. 12th, New York, N. Y.  
 A.B. Univ. of N. Carolina 1881; M.D. Univ. of Penna. 1887.  
 1883 Miles, Geo. W . . . . . Oneida, N. Y.  
 A.B. Hamilton 1873; M.D. Columbus Med. Coll. 1879.  
 1889 \*Millard, Henry B. (\*1893) . . . . . New York, N. Y.  
 1881 Miller, Horace G . . . . . 262 Benefit, Providence, R. I.  
 A.M. Brown 1860; M.D. Harvard 1865.  
 Ophthalmic and Aural Surgeon R. I. Hosp; (Consulting) St. Elizabeth and  
 Bethany Homes.  
 1897 Miller, Walter McN . . . . . 134 W. 4th, Portsmouth, O.  
 B.S. Univ. of Ohio 1888; M.D. Cooper Med. Coll. 1895.  
 1889 Mills, Hiram R . . . . . Port Huron, Mich.  
 A.B. Univ. of Mich. 1861; M.D. Ibid. 1866.  
 1884 \*Miner, Joshua L. (\*1889) . . . . . Wilkes-Barre, Pa.

§ Present whereabouts unknown.

\* Deceased.

- 885 Mitchell, Alfred . . . Brunswick, Me.  
A.B. Bowdoin 1859; M.D. Coll. P. & S. of N. Y. (Columbia) 1865.  
Prof. Pathology and Practice of Medicine Med. Dept., Bowdoin, and Dean.
- 1879 \*Mitchell, Chauncey L . . . Brooklyn, N. Y.
- 1892 Mitchell, Giles S . . . 277 W. 8th, Cincinnati, O.  
A.B. Univ. of Indiana 1873; M.D. Med. Coll. of Ohio 1875.  
Obstetrician Presbyterian Hosp.
- 1892 Mitchell, Matthew R . . . 605 Kansas Ave., Topeka, Kas.  
A.B. Jefferson 1862; M.D. Med. Coll. of Ohio 1868.
- 1897 Montgomery, Edward E . . . 1703 Walnut, Phila., Pa.  
B.S. Denison Univ. 1871; M.D. Jefferson Med. Coll. 1874.  
Prof. Gynecology Jefferson Med. Coll.; Gynecologist to Jefferson and St.  
Joseph's Hosps.
- 1899 Moore, Dickson L . . . 141 E. State, Columbus, O.  
A.B. Univ. of Wooster 1885; M.D. Ibid. 1892.
- 1901 Moore, Hugh M . . . Oxford, Ohio.  
B.S. Miami 1895; M.S. Ibid. —; M.D. Johns Hopkins 1899.
- 1882 \*Moore, J. Fred (\*1893) . . . Brooklyn, N. Y.
- 1890 Moore, John H . . . Bridgeton, N. J.  
A.B. Princeton 1877; M.D. Univ. of Penna. 1880.
- 1878 Moore, James W . . . Easton, Pa.  
A.B. Lafayette 1864; A.M. Ibid. 1867; M.D. Univ. of Penna. 1869.  
Prof. Mechanics and Experimental Philosophy, Lafayette Coll.
- 1884 Morehouse, Geo. R . . . 2033 Walnut, Phila., Pa.  
A.B. Princeton, 1848; M.D. Jefferson Med. Coll. 1850; M.D. Univ. of Penna. 1880.
- 1889 Morris, Elliston J . . . 128 S. 18th, Phila., Pa.  
A.B. Univ. of Penna. 1883; M.D. Ibid. 1886.
- 1880 Morris, J. Cheston . . . 1514 Spruce, Phila., Pa.  
A.B. Univ. of Penna. 1851; A.M. Ibid. 1854; M.D. Ibid. 1854.  
Member of Council, 1883; Vice-President, 1884, 1889; Treasurer, 1890, 1892.
- 1899 Morris, J. W . . . 142 Forest Ave., Jamestown, N. Y.  
A.B. Amherst 1885; M.D. Columbia 1889.
- 1883 Morrow, Prince A . . . 66 W. 40th, New York, N. Y.  
A.B. Cumberland Coll. 1862; M.D. Univ. of the City of New York, 1873.  
Emeritus Prof. Genito-Urinary Diseases, The Univ. and Bellevue Hosp.  
Med. Coll.
- 1884 \*Morton, Douglas (\*1892) . . . Louisville, Ky.
- 1880 \*Morton, Lloyd . . . Pawtucket, R. I.
- 1881 Morton, Wm. J . . . 36 W. 56th, New York, N. Y.  
A.B. Harvard 1867; M.D. Ibid. 1872.
- 1889 Moses, Thos. F . . . Waltham, Mass.  
A.B. Bowdoin 1857; M.D. Jefferson Med. Coll. 1861.  
Vice-president, 1892.
- 1901 Mott, John S . . . 522 Rialto Bldg., Kansas City, Mo.  
M.D. Univ. of Mich. 1867.
- 1897 Moulton, A. R . . . 49th and Market, Phila., Pa.  
M.D. Bowdoin 1876.  
Assistant Phys. Penn. Hosp. for the Insane.
- 1894 Moulton, Charles F . . . W. Roxbury, Mass.  
A.B. Bowdoin 1887; M.D. Dartmouth 1890.

\* Deceased.

- 1882 \*Muhlenberg, Francis (\*1894) . . . . . Lancaster, Pa.  
 1882 Muhlenberg, Wm. F . . . . . Reading, Pa.  
     A.B. Muhlenberg 1868; M.D. Univ. of Penna. 1872.  
 1882 \*Mulford, Isaac B . . . . . Camden, N. J.  
 1889 \*Mulhall, Joseph C (\*1900) . . . . . St. Louis, Mo.  
 1900 Murray, W. R . . . . . 409 Dayton Bldg., Minneapolis, Minn.  
     Ph.B. Univ. of Mich. 1892; M.D. Rush Med. Coll. 1897.  
 1890 Musser, Charles S . . . . . Aaronsburg, Pa.  
     A.B. Franklin and Marshall 1878; M.D. Jefferson Med. Coll. 1880.  
 1897 Nancrede, Charles B . . . . . 910 Cornwell Place, Ann Arbor, Mich.  
     M.D. Univ. of Penna. 1868; A.M. (Hon.) Univ. of Mich. 1893; LL.D.  
     Prof. Surgery and Clinical Surgery Univ. Mich.  
 1888 Needham, George G . . . . . 218 E. 19th, New York, N. Y.  
     A.B. Coll. of the City of N. Y. 1862; M.D. Bellevue Hosp. Med. Coll. 1863.  
 1882 Nelson, Daniel T . . . . . 2400 Indiana Ave., Chicago, Ill.  
     A.B. Amherst 1861; M.D. Harvard 1865.  
 1889 Nelson, Edwin M . . . . . 965 Hamilton Ave., St. Louis, Mo.  
     A.B. Hamilton 1868; M.D. Miami Med. Coll. 1874.  
 1884 \*Nelson, Samuel N (\*1893) . . . . . Revere, Mass.  
 1898 Newcomb, James E . . . . . 118 W. 69th, New York, N. Y.  
     A.B. Yale 1880; M.D. Columbia 1883.  
     Instructor Laryngology Med. Faculty Cornell Univ.; Laryngologist Dewitt  
     Dispensary and Roosevelt Hosp. (Out-Patient Dept.).  
 1879 \*Newcomet, Henry W . . . . . Philadelphia, Pa.  
 900 Newhart, Horace . . . . . 837 Andrus Bldg., Minneapolis, Minn.  
     A.B. Dartmouth 1895; M.D. Univ. of Mich. 1898.  
 1897 Newman, Henry P . . . . . 438 La Salle Ave., Chicago, Ill.  
     M.D. Detroit Med. Coll. 1878; A.M. (Hon.) Dartmouth 1894.  
     Treasurer Am. Med. Assoc.; Prof. Clinical Gynecology Coll. P. & S.  
 1895 Newton, Edwin D . . . . . Athens, Ga.  
     A.B. Univ. of Georgia 1856; M.D. Jefferson Med. Coll. 1859.  
 1889 \*Nichol, Wm. L (\*1901) . . . . . Nashville, Tenn.  
 1895 Niesley, Chas. M . . . . . Manhasset, N. Y.  
     B.S. Lafayette 1886; M.D. Univ. of Penna. 1890.  
 1900 J. Douglas Nisbet . . . . . 10 E. 43rd, New York, N. Y.  
     A.B. Davidson 1881; M.D. Louisville Med. Coll. 1886.  
 1890 Noble, Henry S . . . . . Middletown, Conn.  
     A.B. Tufts 1869; M.D. Coll. P. & S. N. Y. (Columbia) 1871.  
     Supt. Conn. Insane Hospital.  
 1901 Noble, Mary R . . . . . Woman's Hospital, Phila., Pa.  
     A.B. Colorado Coll. 1896; M.D. Woman's Med. Coll. of Penna. 1901.  
 1888 O'Brien, Chas. C . . . . . Groveton, N. H.  
     A.B. Tufts 1870; M.D. Miami Med. Coll. 1881.  
 1888 O'Donovan, Chas., Jr . . . . . 311 W. Monument, Baltimore, Md.  
     A.B. Georgetown 1878; M.D. Univ. of Maryland 1881.  
 1880 O'Leary, Chas. (\*1897) . . . . . Providence, R. I.  
 1894 O'Neill, James B . . . . . 519 Congress, Portland, Me.  
     A.B. Middlebury 1883; M.D. Harvard 1887.  
     Surgeon Me. Eye and Ear Infirmary (Gynecologic Dept.).

\* Deceased.

- 1885 Oakes, Wallace K . . . . . 60 High, Auburn, Me.  
A.B. Bowdoin 1870; M.D. Coll. P. & S. N. Y. (Columbia) 1873.  
Surgeon Central Me. Gen. Hosp.
- 1898 Olds, Frank W . . . . . Williamstown, Mass.  
A.B. Williams 1876; M.D. Coll. P. & S. N. Y. (Columbia) 1880.
- 1894 Oliver, C. A . . . . . 1507 Locust, Phila., Pa.  
A.B. Central High School, Phila., 1873; M.D. Univ. of Penna. 1876.
- 1898 Osborn, Geo. W . . . . . 339 Broad, Bridgeport, Conn.  
A.B. Yale 1884; M.D. Columbia 1887.
- 1885 \*Osgood, Wm. (\*1894) . . . . . N. Yarmouth, Me.
- 1884 Otis, Edward O . . . . . 308 Commonwealth Ave., Boston, Mass.  
A.B. Harvard 1871; M.D. Ibid. 1877.  
Member of Council, 1900.  
Phys. Free Home for Consumptives; Senior Physician Boston Dispensary.
- 1878 Ott, Isaac . . . . . Easton, Pa.  
M.D. Univ. of Penna. 1869; A.M. (Hon.) Lafayette 1877.  
Prof. Physiology Medico-Chirurgical Coll. Phila.
- 1889 Overfield, Adam . . . . . Houghton, Mich.  
A.B. Union 1862; M.D. Univ. of Mich. 1870.
- 1885 Packard, Chas. A . . . . . Bath, Me.  
A.B. Bowdoin 1848; M.D. Ibid. 1856.
- 1888 Packard, Frederick A . . . . . 258 S. 18th, Phila., Pa.  
A.B. Univ. of Penna. 1882; M.D. Ibid. 1885.  
Phys. to Phila. and Children's Hosp.; to Out-Patient Dept. Penna. Hosp.;  
Instructor in Physical Diagnosis Univ. of Penna.
- 1889 Packard, John H . . . . . 1924 Spruce, Phila., Pa.  
A.B. Univ. of Penna. 1850; M.D. Ibid. 1853.  
Surgeon St. Joseph's Hosp.
- 1889 \*Page, H. R . . . . . Des Moines, Ia.
- 1897 Paine, Arthur R . . . . . 211 Lafayette Ave., Brooklyn, N. Y.  
A.B. Amherst 1871; M. D. Coll. P. & S. of N. Y. (Columbia) 1875.
- 1879 \*Pancoast, Wm. H. (\*1897) . . . . . Philadelphia, Pa.
- 1888 Park, John G . . . . . Lunatic Hospital, Worcester, Mass.  
A.B. Harvard 1858; M.D. Ibid. 1866.
- 1897 Parker, Wallace A . . . . . Springfield, Mass.  
A.B. Harvard 1891; M.D. Univ. of Mich. 1892.
- 1898 Partree, Homer T . . . . . Blandford, Mass.  
A.B. Yale 1887; M.D. Yale 1892.
- 1880 \*Parvin, Theophilus (\*1898) . . . . . Philadelphia, Pa.  
Vice-president, 1888; President, 1890.
- 1889 Patterson, E. Blanchard . . . . . Manistique, Mich.  
A.B. Oberlin 1880; M.D. Univ. of Mich. 1886.  
Chief Surgeon Manistique Hospital.
- 1883 Patzki, Julius H . . . . . Care of War Dept., Washington, D. C.  
M.D. Jefferson Med. Coll. 1867.  
Major U. S. A. (retired).
- 1888 Peabody, Chas. A . . . . . Worcester, Mass.  
A.B. Amherst 1868; M.D. Jefferson Med. Coll. 1873.  
Supt. City Hosp.
- 1899 Pease, Edward Allen . . . . . 483 Beacon, Boston, Mass.  
A.B. Harvard 1888; M.D. Ibid. 1892.  
Orthopedic Surgeon Boston Dispy.

\* Deceased.

- 1891 Peck, Geo . . . . . 926 N. Broad, Elizabeth, N. J.  
M.D. Coll. P. & S. of N. Y. (Columbia) 1847.  
Medical Director (Captain) U. S. N. (Retired).
- 1898 Peck, Geo. B . . . . . 865 N. Main, Providence, R. I.  
A.B. Brown 1864; M.D. Yale 1871.
- 1895 Peckham, Frank E . . . . . 53 Governor, Providence, R. I.  
Ph.B. Brown 1885; M.D. Harvard 1890.
- 1898 Pegram, John C., Jr . . . . . 234 Benefit, Providence, R. I.  
A.B. Brown 1892; M.D. Harvard 1897.
- 1901 Penrose, Clement A . . . . . 21 W. Mt. Royal Ave., Baltimore, Md.  
A.B. Johns Hopkins 1893; M.D. Ibid. 1897.
- 1889 Penrose, Chas. B . . . . . Ventnor, N. J.  
A.B. Harvard 1881; A.M. 1884; M.D. Univ. of Penna. 1884.  
Prof. Gynecology Univ. of Penna. 1893-1899. Retired from Practice of Medicine 1899.
- 1882 \*Pepper, Wm. (\*1898) . . . . . Philadelphia, Pa.
- 1880 Perkins, Francis M . . . . . 1428 Pine, Phila., Pa.  
A.B. Williams 1872; M.D. Univ. of Penna. 1876.  
Ophthalmic Surgeon St. Agnes' and Presbyterian Hosp.
- 1882 Perry, Chas. R . . . . . 900 Main, Worcester, Mass.  
A.M. Brown 1859; M.D. Bellevue Hosp. Med. Coll. 1866.
- 1891 Peterson, Reuben . . . . . 4621 Woodland Ave., Chicago, Ill.  
A.B. Harvard 1885; M.D. Ibid. 1889.
- 1892 Phillips, Ellis . . . . . New Haven, Pa.  
A.B. Washington 1864; M.D. Jefferson Med. Coll. 1867.
- 1892 Phillips, G. W . . . . . Vinal Haven, Me.  
A.B. Bowdoin 1878; M.D. Long Island Coll. Hosp. 1880.
- 1897 Phillips, Thos. H . . . . . Canton, Ohio.  
M.D. Jefferson Med. Coll. 1864; A.M. Washington and Jefferson 1890.
- 1891 Phillips, W. W. L . . . . . 52 W. State, Trenton, N. J.  
A.B. Princeton 1848; M.D. Jefferson Med. Coll. 1851.
- 1882 Pickett, Thos. E . . . . . Maysville, Ky.  
A.B. Centre 1860; M.D. Univ. of Penna. 1865.
- 1895 Pilcher, Jas. E . . . . . Carlisle, Pa.  
A.B. Univ. of Mich. 1879; M.D. Long Island Coll. Hosp. 1880.  
Captain and Assistant Surg. U. S. A (Retired).
- 1879 Pilcher, Lewis S . . . . . 145 Gates Ave., Brooklyn, N. Y.  
A.B. Univ. of Mich. 1862; M.D. Ibid. 1866.
- 1879 \*Pinkney, Howard (\*1888) . . . . . New York, N. Y.  
Vice-president, 1880.
- 1898 Platt, Walter B . . . . . 802 Cathedral, Baltimore, Md.  
Ph.B. Yale 1874; M.D. Harvard 1879.
- 1897 Plummer, Chas. G . . . . . Mercantile Block, Salt Lake City, Utah.  
B.L. Northwestern Univ. 1884; M.D. Ibid. 1886.  
Vice-president, 1899.
- 1892 Pontius, Paul J . . . . . 1629 Chestnut, Phila., Pa.  
A.B. Bucknell 1888; M.D. Univ. of Penna. 1891.
- 1882 Porter, Geo. L . . . . . 266 State, Bridgeport, Conn.  
A.M. Brown 1859; M.D. Jefferson Med. Coll. 1862.
- 1880 Porter, Geo. W . . . . . 8 Greene, Providence, R. I.  
A.B. Brown 1870; A.M. Brown 1873; A.M. Harvard 1874; M.D. Harvard 1874.  
House Officer Boston City Hosp. 1873-74; House Surg. Woman's Hosp. (N.Y.) 1874-76; Surgeon R. I. Hosp.; Consultant Providence Lying-in Hosp.

\* Deceased.

- 1885 Post, M. Hayward . . . 2641 Washington Ave., St. Louis, Mo.  
A.B. Washington Univ. 1872; M.D. St. Louis Med. Coll. 1877.
- 1897 Post, Silas Benham . . . 222 N. Cleveland Ave., Canton, O.  
A.B. Washington and Jefferson 1879; A.M. Ibid 1882; M.D. Jefferson Med.  
Coll. 1882.
- 1900 Powell, W. M. . . . 31 S. Indiana Ave, Atlantic City, N. J.  
M.D. Univ. of Penna. 1884.
- 1888 \*Pratt, H. D. V. Jr. (\*1899) . . . . . Elmira, N. Y.
- 1888 Presbrey, Silas D . . . . . 103 Weir, Taunton, Mass.  
A.B. Harvard 1860; M.D. Ibid. 1865.  
Vice-president, 1892.  
Consultant Morton Hosp.
- 1890 Prince, Arthur E . . . . . Springfield, Ill.  
B.S. Illinois Coll. 1874; M.D. Univ. of the City of N. Y. 1877.
- 1897 Probasco, J. B . . . . . 175 E. Front, Plainfield, N. J.  
Ph.B. Bucknell 1863; M.D. Univ. of Penn. 1869.
- 1894 Pudor, Gustav A . . . . . Portland, Me.  
A.B. Harvard 1886; M.D. Ibid. 1889.  
Asst. Surg. and Dermatologist Me. Eye and Ear Infirmary.
- 1893 Puls, Arthur J . . . . . 116 Mason, Milwaukee, Wis.  
B.L. Univ. of Wisconsin 1879; M.D. Heidelberg (Germany) 1883.
- 1898 Pulsford, Henry A . . . . . South Orange, N. J.  
A.B. Harvard 1888; M.D. Columbia 1891.
- 1895 Pusey, Wm. A . . . . . 103 State, Chicago, Ill.  
A.B. Vanderbilt 1885; M.D. Univ. City of N. Y. 1888.  
Prof. Dermatology and Clinical Dermatology Coll. P. & S.
- 1894 Putnam, Harry L . . . . . Houlton, Me.  
A.B. Colby 1886; M.D. Bellevue Hosp. Med. Coll. 1890.
- 1892 Putnam, Helen C . . . . . 127 Angell, Providence, R. I.  
A.B. Vassar 1878; M.D. Woman's Med. Coll. of America, 1889.  
Vice-president, 1894.
- 1895 Pyle, Walter L . . . . . 1806 Chestnut, Phila., Pa.  
A.B. Central High School Phila. 1888; M.D. Univ. of Penna. 1893.  
Assistant Sec'y, 1897-1900.
- 1888 Rae, Alexander . . . . . 20 Clinton, Brooklyn, N. Y.  
A.B. Amherst 1883; M.D. Long Island Coll. Hosp. 1885.
- 1889 Ranney, Ambrose L . . . . . 156 Madison Ave., New York, N. Y.  
A.B. Dartmouth 1868; M.D. Univ. of the City of N. Y. 1870.
- 1897 Ravogli, Augustus . . . . . 5 Garfield Place, Cincinnati, O.  
Ph.D. Univ. of Rome, Italy, 1868; M.D. Ibid. 1873.  
Prof. Dermatology and Syphilology Medical College of Ohio.
- 1877 \*Rea, James C . . . . . Pittsburg, Pa.
- 1884 \*Read, Ira B . . . . . New York, N. Y.
- 1889 Reddy, Herbert L . . . . . 61 Beaver Hall Hill, Montreal, Canada.  
A.B. McGill 1873; M.D. Ibid. 1876.
- 1882 \*Reed, Joseph A . . . . . Dixmont, Pa.
- 1897 Reed, Robert J . . . . . Wheeling, W. Va.  
A.B. Washington and Jefferson 1881; M.D. Bellevue Hosp. Coll. 1884.  
Surgeon City Hospital.
- 1882 \*Reed, Thos. B . . . . . Philadelphia, Pa.
- 1900 Reed, W. Boardman . . . . . 1833 Chestnut, Phila., Pa.  
M.D. Univ. of Penna. 1878.  
Editor *International Med. Mag.*

- 1888 Reed, Wm. G . . . . . Sturbridge, Mass.  
A.B. Bowdoin 1874; M.D. Ibid. 1878.
- 1889 Reeve, Richard A . . . . . 22 Shuter, Toronto, Canada  
A.B. Univ. of Toronto 1862; M.D. Queen's Univ. 1865.
- 1900 Reiley, E. A . . . . . Atlantic City, N. J.  
B.S. Rutgers 1877; M.D. Univ. of the City of N. Y. 1881.
- 1879 \*Reiley, Geo. W (\*1892) . . . . . Harrisburg, Pa.
- 1888 \*Rex, Geo. A (\*1895) . . . . . Philadelphia, Pa.
- 1888 Rice, Wm. E . . . . . Bath, Me.  
A.B. Bowdoin 1875; M.D. Columbian Univ. 1878.
- 1888 \*Rich, Joshua B (\*1896) . . . . . Worcester, Mass.
- 1896 Richardson, Maurice H . . . . . 224 Beacon, Boston, Mass.  
A.B. Harvard 1873; M.D. Ibid. 1877.  
Assistant Prof. Clinical Surgery Medical School, Harvard University.
- 1891 Rider, Wheelock . . . . . 53 S. Fitzhugh, Rochester, N. Y.  
B.S. Univ. of Rochester 1883; M.D. Syracuse Univ. 1885.
- 1885 Ring, Chas. A . . . . . 608 Congress, Portland, Me.  
A.B. Bowdoin 1868; M.D. Ibid. 1872.  
Prof. Obstetrics Med. Dept., Bowdoin College; Instructor Obstetrics Portland School for Medical Instruction; Phys. Me. Gen. Hospital.
- 1888 \*Ring, Frank W . . . . . New York, N. Y.
- 1899 Risley, Samuel D . . . . . 1824 Chestnut, Phila., Pa.  
M.D. Univ. of Penna. 1870.  
Surgeon Wills Eye Hospital; Prof. Ophthalmology Phila. Polyclinic.  
President, 1900.
- 1898 Ritchie, Harry Parks . . . . . 105 Lowry Arcade, St. Paul, Minn.  
Ph.B. Yale 1893; M.D. Univ. of Minnesota 1896.  
Assistant in Gynecology Coll. Med. and Surg., Univ. of Minn.  
Vice-president, 1901.
- 1894 Robbins, J. E . . . . . Danville, Pa.  
A.B. Lafayette 1887; M.D. Univ. of Penna. 1893.  
Assist. Phys. State Hosp. for Insane.
- 1879 Roberts, John B . . . . . 1627 Walnut, Phila., Pa.  
A.B. Univ. of Penna. 1871; A.M. Ibid. 1874; M.D. Jefferson Med. Coll. 1874.  
Vice-president, 1895, 1897.  
Prof. Anatomy and Surgery Phila. Polyclinic; Prof. Surgery Woman's Medical Coll; Surgeon Methodist Hosp.
- 1885 Robinson, Daniel A . . . . . 142 Hammond, Bangor, Me.  
A.B. Bowdoin 1873; M.D. Ibid. 1881.
- 1892 Robinson, R . . . . . East Brady, Pa.  
A.B. Jefferson 1862; Long Island College Hospital 1866.
- 1884 Robison, John A . . . . . 70 State, Chicago, Ill.  
A.B. Monmouth 1877; M.D. Rush Med. Coll. 1880.
- 1897 Roche, C. Percy de la . . . . . 1518 Pine, Phila., Pa.  
A.B. Georgetown 1853; M.D. Univ. of Penna. 1856.
- 1893 Rochester, De Lancey . . . . . 469 Franklin, Buffalo, N. Y.  
A.B. Harvard 1881; M.D. Univ. of Buffalo 1884.  
Associate Prof. Principles and Practice of Medicine Medical Dept., Univ. of Buffalo; Assistant Physician Buffalo Gen. Hospital.
- 1879 Rockwell, A. D . . . . . 113 W. 34th, New York, N. Y.  
M.D. Bellevue Hosp. Med. Coll. 1864; A.M. (Hon.) Kenyon 1865.

\* Deceased.



- 1891 Rogers, Arthur C . . . . . Faribault, Minn.  
B.S. Earlham 1877; M.D. Univ. of Iowa 1873.  
Superintendent Minnesota School for Feeble-Minded.
- 1897 Rogers, Daniel W . . . . . 2204 Michigan Ave., Chicago, Ill.  
A.B. Amherst 1887; M.D. Northwestern Univ. 1894.
- 1897 Rogers, Frederick T . . . . . 117 Broad, Providence, R. I.  
A.B. Union 1880; M.D. Univ. of the City of N. Y. 1882.  
Vice-president, 1887.  
Ophthalmic Surgeon St. Joseph's Hospital; Asst. Ophthalmic Surgeon R. I.  
Hospital.
- 1898 Rogers, John B . . . . . Marysville, Cal.  
A.B. Amherst 1888; M.D. Cooper Med. Coll. 1896.
- 1895 \*Rohe, Geo. H (\*1899) . . . . . Sykesville, Md.
- 1878 Roosa, Daniel B. St. J . . . . . 20 E. 30th, New York, N. Y.  
M.D. Univ. of the City of N. Y. 1860; A.M. (Hon.) Yale 1868.  
Surgeon Manhattan Eye and Ear Hosp.
- 1897 Rothrock, John L . . . . . 235 Lowry Arcade, St. Paul, Minn.  
A.B. Pennsylvania Coll. 1885; M.D. Univ. of Penna. 1888.  
Member of Council, 1900.  
Clinical Instructor Pathology College Med. and Surg., Univ. of Minn.
- 1899 Ruddick, Wm. H . . . . . 502 E. Broadway, S. Boston, Mass.  
M.D. Harvard 1868; B.S. Ibid. 1881.
- 1889 Rutherford, Clarendon . . . . . 102 Fullerton Ave., Chicago, Ill.  
A.B. Union 1876; M.D. McGill 1882.
- 1878 \*Ryerson, Thos . . . . . Newton, N. J.  
Vice-president, 1879.
- 1889 Salisbury, James Newton . . . . . Russellville, O.  
A.M. Marietta 1849; M.D. Med. Coll. of Ohio 1851.
- 1878 \*Sandt, John (\*1889) . . . . . Easton, Pa.
- 1879 \*Sanford, Leonard J (\*1896) . . . . . New Haven, Conn.
- 1878 Santee, Eugene J . . . . . 532 N. 6th, Phila., Pa.  
A.B. Univ. of Penna. 1863; A.M. Ibid. 1866; M.D. Ibid. 1866.
- 1891 Sargent, Dudley A . . . . . Hemenway Gymnasium, Cambridge, Mass.  
A.B. Bowdoin 1875; M.D. Yale 1878.  
Director Hemenway Gymnasium, Harvard Univ.
- 1891 Sartain, Paul J . . . . . 212 W. Logan Sq., Phila., Pa.  
A.B. Univ. of Penna. 1883; M.D. Ibid. 1886.
- 1889 Satterthwaite, Thos. E . . . . . 17 E. 44th, New York, N. Y.  
A.B. Yale 1864; M.D. Coll. P. & S. N. Y. (Columbia) 1867.
- 1898 Savage, Watson L . . . . . 308 W. 59th, New York, N. Y.  
A.B. Amherst 1882; M.D. Long Island Coll. Hosp. 1885.
- 1890 Sayre, Reginald H . . . . . 285 5th Ave., New York, N. Y.  
A.B. Columbia 1881; M.D. Bellevue Hosp. Med. Coll. 1884.  
Clin. Prof. Orthopedic Surgery Univ. and Bellevue Hospital Med. Coll.
- 1889 Schaeffler, Edward W . . . . . 900 Walnut, Kansas City, Mo.  
A.B. Williams 1862; M.D. Coll. P. & S. of N. Y. (Columbia) 1868.
- 1901 Schaeffler, Wm. G . . . . . Lakewood, N. J.  
A.B. Amherst 1886; M.D. Columbia 1889; M.D. Imperial Ottoman Med. School,  
Constantinople, 1891.
- 1892 Scheel, A. M . . . . . Belleville, Ill.  
A.B. Washington Univ. 1872; M.D. Univ. of Munich (Bavaria) 1876.

\* Deceased.

- 1878 Schenck, P. L. . . . . 60 St. Mark's Ave., Brooklyn, N. Y.  
A.B. Univ. of the City of N. Y. 1862; A.M. Ibid. 1865; M.D. Coll. P. & S. N. Y.  
(Columbia) 1865.
- 1882 \*Schenck, Tunis (\*1899) . . . . . Bath Beach, N. Y.
- 1898 Scheppegrell, Wm . . . . . Medical Bldg., New Orleans, La.  
A.B. Charleston Coll. 1879; M.D. So. Carolina Med. Coll. 1889.
- 1898 Schneideman, Theodore B . . . . . 112 S. 18th, Phila., Pa.  
A.B. Princeton 1881; M.D. Jefferson Med. Coll. 1893.
- 1877 Schoonover, Warren . . . . . 115 E. 59th, New York, N. Y.  
A.B. Union 1864; A.M. Ibid. 1867; M.D. Coll. P. & S. N. Y. (Columbia) 1867.
- 1877 \*Schultz, Solomon S (\*1891) . . . . . Danville, Pa.
- 1895 Schweinitz, Geo. E. de . . . . . 1401 Locust, Phila., Pa.  
A.B. Moravian Coll. Bethlehem 1876; M.D. Univ. of Penna. 1881.  
Clin. Prof. Ophthalmology Jefferson Medical Coll.; Prof. Ophthalmology  
Phila. Polyclinic; Ophthalmic and Aural Surgeon Children's Hospital;  
Ophthalmologist to Orthopedic and Philadelphia Hospital; Consultant  
Methodist Hospital.
- 1890 Schwenk, Peter N. K . . . . . 810 N. 7th, Phila., Pa.  
B.S. Bucknell 1876; M.D. Univ. of Penna. 1882.
- 1878 Scott, J. McPherson . . . . . Hagerstown, Md.  
A.B. Pennsylvania Coll. 1871; M.D. Univ. of Penna. 1873; A.M. Penn. Coll.  
1874.  
Secretary State Board Medical Examiners.  
President Medico-Clinical Faculty of Maryland.
- 1882 Scott, Xenophon C . . . . . 127 Euclid Ave., Cleveland, O.  
A.B. Washington and Jefferson 1865; M.D. Cleveland Med. Coll. 1867.
- 1888 Scribner, Ernest V . . . . . Worcester, Mass.  
A.B. Bates 1878; M.D. Bowdoin 1881.  
Superintendent Worcester Insane Asylum.
- 1888 Seaman, Wm. S . . . . . 16 W. 52nd, New York, N. Y.  
A.B. Harvard 1877; M.D. Coll. P. & S. of N. Y. (Columbia) 1882.
- 1896 Searcy, J. T . . . . . Tuscaloosa, Ala.  
A.B. Univ. of Ala. 1859; M.D. Univ. of the City of N. Y. 1867.  
Vice president 1896, 1898; Member of Council, 1901.  
Superintendent Bryce Insane Hospital.
- 1897 Sechrist, Cora S . . . . . 176 Euclid Ave., Cleveland, O.  
B.S. Cornell 1893; M.D. Woman's Med. Coll. of Penna.
- 1882 Seely, W. W . . . . . S. E. Cor. 4th and Broadway, Cincinnati, O.  
A.B. Yale 1862; M.D. Med. Coll. of Ohio 1864.  
Prof. Clin. Ophthalmology and Otology Medical College of O; Dean of the  
Faculty.
- 1876 Sell, Edward H. M . . . . . 137 W. 94th, New York, N. Y.  
A.B. Penn. Coll. 1856; A.M. Ibid. 1859; M.D. Bellevue Hosp. Med. Coll. 1866.  
Vice-president, 1876, 1878; Treasurer 1877; Member of Council 1884.
- 1884 \*Shakespeare, Edward O (\*1900) . . . . . Philadelphia, Pa.
- 1895 Shannon, John R . . . . . Cabanis, Ga.  
A.B. Univ. of Georgia 1873; M.D. Southern Med. Coll. 1893.  
Member of Council, 1896.
- 1877 \*Shapleigh, Elisha B (\*1892) . . . . . Philadelphia, Pa.
- 1885 Shapleigh, John B . . . . . 3621 Washington Ave., St. Louis, Mo.  
A.B. Washington Univ. 1878; M.D. St. Louis Med. Coll. 1881.

\* Deceased.

- 1896 Shastid, Thos. H . . . 1129 Michigan Ave., Ann Arbor, Mich.  
A.B. Harvard 1893; M.D. Univ. of Vermont 1888.
- 1886 Shaw, Wm. C . . . 1009 Wylie Ave., Pittsburg, Pa.  
A.B. Washington and Jefferson 1869; M.D. Bellevue Hosp. Med. Coll. 1872.  
Phys. and Obstetrician Bethesda Home.
- 1877 \*Shearer, James M . . . . . Dillsburg, Pa.
- 1890 Shearer, Niles H . . . . . York, Pa.  
A.B. Dickinson 1864; M.D. Univ. of Maryland 1866.
- 1882 Sheldon, Chas. S . . . . . Madison, Wis.  
A.B. Yale 1863; M.D. Coll. P. & S. of N. Y. (Columbia) 1868.  
Member of Council, 1892, 1900.
- 1901 Sheldon, H. W . . . . . Negaunee, Mich.  
A.B. Brown 1881; A.M. Ibid. 1884; M.D. Rush Med. Coll. 1885.
- 1897 Sheppard, John E . . . . . 130 Montague, Brooklyn, N. Y.  
A.B. Haverford 1879; M.D. Univ. of Penna. 1882.
- 1889 Sherrill, Edwin S . . . . . 270 Woodward Ave., Detroit, Mich.  
A.B. Univ. of Mich. 1880; M.D. Coll. P. & S. of N. Y. (Columbia) 1885.
- 1878 Shoemaker, John V . . . . . 1519 Walnut, Phila., Pa.  
A.B. Dickinson 1872; M.D. Jefferson Med. Coll. 1874; A.M. Dickinson 1875.  
Prof. Mat. Med. Therapeutics and Clin. Med.; Clinical Prof. Diseases of  
Skin Medico-Chirurgical College; Phys. to Medico-Chirurgical Hosp.
- 1890 Shoemaker, Levi I . . . . . Wilkes-Barre, Pa.  
A.B. Yale 1882; M.D. Univ. of Penna. 1886.
- 1878 Shradly, Geo. F . . . . . 8 E. 66th New York, N. Y.  
M.D. Coll. P. & S. of N. Y. (Columbia) 1858; A.M. (Hon.) Yale 1869.  
Member of Council, 1878; Vice-president, 1883.
- 1878 Shradly, John . . . . . 149 W. 126th, New York, N. Y.  
A.B. Columbia 1849; A.M. Ibid. 1853; M.D. Coll. P. & S. of N. Y. (Columbia) 1861.
- 1897 Shurly, Burt R . . . . . 32 Adams Ave., W. Detroit, Mich.  
B.S. Univ. of Wisconsin 1894; M.D. Detroit Med. Coll. of Med. 1895.  
Lecturer on Physiology Detroit Coll. of Medicine.
- 1876 \*Sibbet, Robert Lowry (\*1898) . . . . . Carlisle, Pa.  
FOUNDER OF THE ACADEMY.  
Secretary, 1876, 1877; Vice-president, 1878, 1885, 1886, 1890, 1891; Member of Council, 1887, 1892.
- 1899 Silver, Edward V . . . . . Salt Lake City, Utah.  
A.B. Yale 1882; M.D. Coll. P. & S. of N. Y. (Columbia) 1885.
- 1890 Simmons, Arthur R . . . . . 224 Genesee, Utica, N. Y.  
A.B. Amherst 1871; M.D. Coll. P. & S. of N. Y. (Columbia) 1875.
- 1889 Simmons, Chas. E . . . . . 742 Lexington Ave., New York, N. Y.  
A.B. Beloit 1861; M.D. Coll. P. & S. of N. Y. (Columbia) 1864.
- 1897 Simmons, Warren S., Jr . . . . . 338 Lafayette Ave., Brooklyn, N. Y.  
Ph.B. Brown 1889; M.D. Columbia 1892.
- 1888 Simmons, Wm. H . . . . . Bangor, Me.  
A.B. Harvard 1869; M.D. Univ. of Wurzburg 1872.
- 1897 Simons, Chas. E . . . . . 1302 Madison Ave., Baltimore, Md.  
A.B. Johns Hopkins, 1888; M.D. Univ. of Maryland 1890.
- 1888 Simpson, Frederic T . . . . . 122 High, Hartford, Conn.  
A.B. Yale 1879; M.D. Bowdoin 1884.
- 1890 \*Sinne, H. H. (\*1891) . . . . . Trenton, N. J.

\* Deceased.

- 1890 Sleeper, Frank E . . . . . Sabatis, Me.  
A.B. Bates 1867; M.D. Bowdoin 1870.
- 1892 Sloan, Henry H . . . . . 498 W. North Ave., Chicago, Ill.  
A.B. Univ. of Mich. 1862; M.D. Chicago Med. Coll. 1869.
- 1886 Sloan, James G. (\*1897) . . . . . Monongahela City, Pa.
- 1888 Small, Freeman E . . . . . 198 High, Portland, Me.  
A.B. Amherst 1877; M.D. Bowdoin 1879.  
Adj. Surg. Me. Gen. Hospital.
- 1878 \*Smith, Albert H . . . . . Philadelphia, Pa.
- 1889 Smith, A. Laphorn . . . . . 250 Bishop, W. Montreal, Canada.  
A.B. Univ. of Ottawa 1872; M.D. Univ. of Laval 1876.
- 1888 Smith, Andrew R. G . . . . . North Whitefield, Me.  
A.B. Bowdoin 1863; M.D. Dartmouth 1866.  
Member State Board of Health.
- 1893 Smith, Bryant . . . . . 136 Wisconsin, Milwaukee, Wis.  
A.B. Amherst 1887; M.D. Columbia 1891.
- 1888 Smith, Chas D . . . . . 126 Free, Portland, Me.  
A.B. Colby 1877; M.D. Bowdoin 1879.  
Pres. State Board of Health; Prof. Physiology and Hygiene Medical  
Dept., Bowdoin Coll.; Instructor Physiology, Bacteriology, and Pathol-  
ogy Portland School for Medical Instruction.
- 1880 \*Smith, Chas. G . . . . . Chicago, Ill.
- 1898 Smith, Edward W . . . . . 34 W. Main, Meridan, Conn.  
A.B. Yale 1878; M.D. Ibid. 1882.
- 1891 Smith, Geo. E . . . . . 23 Woodland Ave., Oberlin, O.  
A.B. Western Reserve 1855; M.D. Med. Coll. of Ohio 1862.
- 1895 §Smith, Henry H . . . . .  
A.B. Bowdoin 1877; M.D. Jefferson Med. Coll. 1877.
- 1891 Smith, Joseph R . . . . . 2300 De Lancey Pl., Phila., Pa.  
A.B. Univ. of Mich. 1848; M.D. Univ. of Buffalo 1853; LL.D. Univ. of Mich.  
1901.  
Col. U. S. Army (Retired).
- 1883 Smith, Thos. J . . . . . Bridgeton, N. J.  
A.B. Williams 1862; M.D. Univ. of Penna. 1866.
- 1888 Smith, Thos. P . . . . . Saccarappa, Me.  
A.B. Bates 1874; M.D. Harvard 1879.
- 1889 Smith, Wm. H . . . . . Shell Rock, Ia.  
A.B. Wayland 1873; M.D. Chicago Med. Coll. 1878.
- 1882 Smith, Wm. T . . . . . Hanover, N. H.  
A.B. Yale 1860; M.D. Dartmouth 1878; Univ. of the City of N. Y. 1879.  
Member of Council, 1893; Vice-president, 1894.  
Dean and Prof. Physiology Med. Dept., Dartmouth Coll.
- 1891 Smock, Ledru P . . . . . 3330 Chestnut, Phila., Pa.  
A.B. Princeton 1879; M.D. Univ. of Penna., 1882.
- 1897 Snipe, Langdon T . . . . . Bath, Me.  
A.B. Yale 1889; M.D. Columbia 1893.
- 1893 Snively, I. Newton . . . . . 1617 N. Broad, Phila., Pa.  
A.B. Penn. Coll. 1897; M.D. Bellevue Hosp. Med. Coll. 1889.
- 1879 \*Snively, Joseph C . . . . . Brooklyn, N. Y.
- 1879 \*Snow, Edwin M . . . . . Providence, R. I.

\* Deceased.

§ Present whereabouts unknown.

- 1900 Snyder, Thos. . . . . 1919 Main, Niagara Falls, N. Y.  
A. B. Yale 1879; M.D. Jefferson Med. Coll. 1898.
- 1901 Somerville, Wm. G . . . . . Tuscaloosa, Ala.  
A. B. Univ. of Ala. 1885; M.D. Coll. P. & S. of N. Y. (Columbia) 1889.
- 1895 Southard, Wm. F . . . . . 603 Sutter, San Francisco, Cal.  
A. B. Tufts 1869; M.D. Harvard 1872.  
Vice-president, 1895.  
Prof. Ophthalmology, Otology, Rhinology and Laryngology Coll. of P. & S.
- 1885 Spalding, James A . . . . . 627 Congress, Portland, Me.  
A. B. Dartmouth 1866; M.D. Harvard 1870.  
Ophthalmic Surg. Me. Gen. Hosp.
- 1881 \*Spare, John (\*1901) . . . . . New Bedford, Me.
- 1899 Spaulding, Frank W . . . . . Clifton Springs, N. Y.  
A. B. Bowdoin 1872; M.D. Univ. of the City of N. Y. 1875.
- 1892 Speed, J. N . . . . . Rushville, Ill.  
A. B. Centre 1853; M.D. Univ. of Iowa 1860.
- 1891 Springer, Willard . . . . . 810 Washington, Wilmington, Del.  
A. B. Lafayette 1871; M.D. Univ. of Penn. 1874.
- 1878 Stahley, Geo. D . . . . . Gettysburg, Pa.  
A. B. Penna. Coll. 1871; A. M. Ibid. 1874; M.D. Univ. of Penna. 1875.  
Prof. Physical Culture and Hygiene Penna. Coll.
- 1888 Stamwood, Robert G . . . . . 231 Orange, Newark, N. J.  
A. B. Bowdoin 1875; M.D. Ibid. 1878.
- 1889 Staples, Allen . . . . . Dubuque, Ia.  
A. B. Harvard 1881; M.D. Chicago Med. Coll. 1884.
- 1889 \*Staples, Geo. M (\*1895) . . . . . Dubuque, Ia.
- 1894 Staples, Henry L . . . . . Syndicate Bld., Minneapolis, Minn.  
A. B. Bowdoin 1881; A. B. Ibid. 1886.  
Prof. Clinical Med. Coll. of Med. and Surg., Univ. of Minn.
- 1897 Stein, Simon G . . . . . Muscatine, Ia.  
A. B. Chicago Univ. 1883; M.D. Chicago Med. Coll. 1889.
- 1876 \*Steiner, Lewis H (\*1892) . . . . . Baltimore, Md.  
Vice-president, 1876, 1877; President, 1878.
- 1884 Stellwagen, Thos. C . . . . . 1809 Chestnut, Phila., Pa.  
A. B. Central High School Phila. 1859; M.D. Univ. of Penna. 1868.
- 1883 Stevens, Chas. W . . . . . 54 Elm, Charlestown, Mass.  
A. B. Harvard 1860; M.D. Ibid. 1870.
- 1884 \*Stevenson, J. M (\*1896) . . . . . Pittsburg, Pa.
- 1895 Stewart, W. Blair, Cor. N. Carolina & Pacific Aves., Atlantic City, N. J.  
Ph.B. Dickinson 1887; M.D. Medico-Chirurgical Coll. (Phila.) 1890.  
Member of Council, 1900.
- 1876 Stewart, Wm. S . . . . . 1801 Arch, Phila., Pa.  
A. B. Jefferson 1860; M.D. Jefferson Med. Coll. 1863; A. M. Washington and  
Jefferson 1876.  
Vice-president, 1876.  
Emeritus Prof. Obstetrics and Clinical Gynecology Medico-Chirurgical Coll.
- 1883 Stoddard, E. V . . . . . 68 S. Washington, Rochester, N. Y.  
A. B. Trinity 1860; M.D. Albany Med. Coll. 1863.  
Emeritus Prof. Materia Medica and Therapeutics Med. Dept., Univ. of Buffalo.
- 1889 Stone, Wm. G . . . . . Elgin, Ill.  
A. B. Hamilton 1875; M.D. Bellevue Hosp. Med. Coll. 1878.

\* Deceased.

- 1892 Storer, Samuel T . . . . . New Concord, O.  
A.B. Muskingum 1853; M.D. Cleveland Med. Coll. 1860.
- 1900 Stout, G. C . . . . . 34 S. 15th, Phila., Pa.  
U. S. Naval Academy 1883.  
A.B. Univ. of Penn. 1891.
- 1892 Stout, Joseph . . . . . Ottawa, Ill.  
A.B. Miami 1842; M.D. Med. Coll. of Ohio 1845.
- 1901 Strathern, Fred P . . . . . Bennett Bl., St. Peter, Minn.  
B.S. Univ. of Minnesota 1894; M.S. Ibid. 1895; M.D. Ibid. 1899.
- 1877 \*Strawbridge, James D . . . . . Danville, Pa.  
Vice-president, 1881.
- 1897 Strickler, Abraham D . . . . . Waynesboro, Pa.  
A.B. Princeton 1863; M.D. Bellevue Hosp. Med. Coll. 1866.
- 1897 Strong, Norton . . . . . 400 Jefferson Ave., Detroit, Mich.  
A.B. Racine 1873; M.D. Chicago Med. Coll. 1879.  
Captain U. S. (Retired).
- 1889 Strong, Thomas D . . . . . Westfield, N. Y.  
A.B. Univ. of Vermont 1848; M.D. Univ. of Buffalo 1851.
- 1879 Stuart, Francis H . . . . . 123 Joralemon, Brooklyn, N. Y.  
M.D. Long Island Coll. Hosp. 1873; A.M. (Hon.) Hamilton 1878.  
Obstetrician to the Brooklyn Hospital.
- 1879 Stubbs, Geo. E . . . . . 1616 Walnut, Phila., Pa.  
A.B. Bowdoin 1861; M.D. Harvard 1863; A.M. Bowdoin 1864.  
Emeritus Prof. Clinical Surgery Medico-Chirurgical Coll.
- 1898 Stuver, Emanuel . . . . . Fort Collins, Colo.  
M.D. Med. Coll. of Ohio 1880.
- 1900 Summa, Hugo . . . . . 2249 St. Louis Ave., St. Louis, Mo.  
M.D. Univ. of Munich 1884.
- 1888 Swan, Chas. E . . . . . Calais, Me.  
A.B. Bowdoin 1844; M.D. Ibid. 1847.
- 1900 Swartz, Gardner T . . . . . 70 Waterman, Providence, R. I.  
M.D. Harvard 1879.
- 1892 Swift, Elisha P . . . . . Florence, Wis.  
A.B. Lafayette 1886; M.D. Univ. of Penn. 1889.
- 1888 Swift, Wm. N . . . . . 378 County, New Bedford, Mass.  
A.B. Harvard 1877; M.D. Ibid. 1881.  
Phys. St. Luke's Hosp.
- 1892 Sykes, Richard L . . . . . Columbus, Miss.  
A.B. Univ. of North Carolina 1860; M.D. Univ. of City of N. Y. 1866.
- 1883 Tadlock, A. B . . . . . Whitecliff Springs, Tenn.  
A.B. Marysville 1856; M.D. Cincinnati Coll. of Med. and Surg. 1863.
- 1892 \*Talley, Alexander N (\*1897) . . . . . Columbia, S. C.
- 1895 Taneyhill, Geo. L . . . . . 1103 Madison Ave., Baltimore Md.  
M.D. Univ. of Maryland 1865.
- 1889 Tappey, Ernst T . . . . . 270 Woodward Ave., Detroit, Mich.  
A.B. Univ. of Mich. 1873; A.M. Ibid. 1876; M.D. Coll. P. & S. of N. Y.  
(Columbia) 1879.
- 1898 Taylor, Henry Ling . . . . . 60 W. 55th, New York, N. Y.  
Ph.B. Yale 1877; M.D. Coll. P. & S. of N. Y. (Columbia) 1881.

\* Deceased.

- 1897 Taylor, Hugh M . . . . . 6 N. 5th, Richmond, Va.  
M.D. Med. Coll. of Virginia 1876.  
Prof. Surgery Univ. Coll. of Medicine.
- 1889 Taylor, James L . . . . . Wheelersburg, O.  
A.B. Univ. of Mich. 1863; M.D. Med. Coll. of Ohio 1872.  
Vice-president, 1901.
- 1894 Taylor, J. Madison . . . . . 1504 Pine, Phila., Pa.  
A.B. Princeton 1876; M.D. Univ. of Penn. 1878.  
Prof. Children's Diseases Philadelphia Polyclinic; Neurologist Howard Hosp.
- 1878 \*Taylor, Wm. F . . . . . Philadelphia, Pa.  
Vice-president, 1880.
- 1878 \*Thacker, John A (\*1891) . . . . . Cincinnati, O.
- 1889 Thayer, Addison S . . . . . 730 Congress, Portland, Me.  
A.B. Harvard 1881; M.D. Bowdoin 1886.  
Prof. Diseases of Children Med. Dept. Bowdoin Coll.; Instructor Theory and Practice of Medicine Portland School for Medical Instruction.
- 1892 Thayer, H. W. . . . . . Corry, Pa.  
A.B. Wooster 1879; M.D. Rush Med. Coll. 1886.
- 1878 Thomas, James C . . . . . 107 W. 47th, New York, N. Y.  
A.B. Yale 1864; A.M. Ibid. 1867; M.D. Coll. P. & S. (Columbia) 1868.
- 1888 Thomas, Samuel B . . . . . Knightville, Me.  
A.B. Dartmouth 1877; M.D. Bowdoin 1880.
- Thombs, Samuel B . . . . . Knightville, Me.  
A.B. Dartmouth 1877; M.D. Bowdoin 1880.
- 1890 Thompson, Geo. E . . . . . 301 Shawmut Ave., Boston, Mass  
B.S. Dartmouth 1879; M.D. Harvard 1884.  
Phys. Elizabeth Hosp.
- 1889 Thompson, John F . . . . . 601 Congress, Portland, Me.  
A.B. Dartmouth 1882; M.D. Bowdoin 1886.  
Prof. Diseases of Women Med. Dept., Bowdoin Coll.; Instructor Diseases of Women Portland School for Medical Instruction.
- 1897 Thomson, Archibald G . . . . . 1426 Walnut, Phila., Pa.  
Ph.B. Univ. of Penn. 1889; M.D. Ibid. 1892.  
Demonstrator Ophthalmology Phila. Polyclinic; Ophthalmic Surgeon Children's Hosp., Bethany Dispensary.
- 1897 Thomson, Wm . . . . . 1426 Walnut, Phila., Pa.  
M.D. Jefferson Med. Coll. 1855.  
Prof. Ophthalmology (Emeritus), Jefferson Med. Coll.; Ophthalmic Surgeon Hosp. Jefferson Med. Coll.
- 1897 \*Thorner, Max (\*1899) . . . . . Cincinnati, O.
- 1886 Thrasher, A. B . . . . . 157 W. 9th, Cincinnati, O.  
A.B. Butler Univ. 1873; M.D. Med. Coll. of Ohio 1881.
- 1901 Tiffany, Frank M . . . . . Stamford, Conn.  
A.B. Amherst 1891; M.D. Univ. of Penna. 1896.
- 1898 Tinker, Martin B . . . . . 2131 N. 16th, Phila., Pa.  
M.D. Jefferson Med. Coll. 1893; B.S. Harvard 1895.  
Assist. Demonstrator Surgery and Pathology Jefferson Med. Coll.
- 1883 Todd, William S . . . . . Ridgefield, Conn.  
A.B. Wesleyan 1864; M.D. Coll. P. & S. of N. Y. (Columbia), 1869.
- 1888 Tolman, Julia . . . . . Arlington, Mass.  
A.B. Vassar 1876; M.D. Univ. of Mich. 1884.
- 1901 Tomlinson, Harry A . . . . . St. Peter, Minn.  
M.D. Univ. of Penna. 1880.

- 1892 Tomlinson, Joseph . . . . . Roadstown, N. J.  
A.B. Williams 1875; M.D. Coll. P. & S. of N. Y. (Columbia) 1878.
- 1894 Totman, David M . . . . . 303 Montgomery, Syracuse, N. Y.  
A.B. Yale 1872; M.D. Univ. of Syracuse 1876.
- 1877 Treichler, C. Galen . . . . . Honeybrook, Pa.  
A.B. Pennsylvania Coll. 1862; A.M. Ibid. 1865; M.D. Univ. of Penn. 1865.
- 1897 Tressel, John H . . . . . Alliance, O.  
A.B. Mt. Union Coll. 1899; M.D. Western Reserve Univ. 1863.
- 1888 Trowbridge, Edward H . . . . . 54 Pleasant, Worcester, Mass.  
A.B. Dartmouth 1881; M.D. Bowdoin 1884.  
Surg. City Hosp. (Out-Patient Dept.).
- 1890 Trowbridge, Grosvenor R . . . . . 1331 Main, Buffalo, N. Y.  
A.B. Williams 1884; M.D. Univ. of Buffalo 1887.
- 1888 Tucker, Edward T . . . . . 258 Pleasant, New Bedford, Mass.  
A.B. Brown 1871; M.D. Harvard 1874.
- 1899 Tuckerman, Louis B (\*1902) . . . . . Cleveland, O.
- 1879 Turnbull, Chas. S . . . . . 1719 Chestnut, Phila., Pa.  
A.B. Central High School Phila., 1868; A.M. Ibid. 1871; M.D. Univ. of Penn. 1871.
- 1880 §Turner, Joseph M . . . . .  
A.B. Hamilton 1838; M.D. Transylvania Univ. 1841.
- 1897 Turner, Oliver W . . . . . Augusta, Me.  
A.B. Bowdoin 1890; M.D. Jefferson Med. Coll. 1893.
- 1891 Turner, Sylvester W . . . . . Chester, Conn.  
A.B. Yale 1842; M.D. Ibid. 1846.
- 1884 \*Turner, Thos. J (\*1901) . . . . . Coldwater, Mich.  
Vice-president, 1887.
- 1893 Tuttle, Albert H . . . . . 735 Main, Cambridge, Mass.  
B.S. Harvard 1883; M.D. Ibid. 1886.  
Surg. St. Omer Hosp.
- 1898 Tuttle, Geo. M . . . . . 49 W. 38th, New York, N. Y.  
A.B. Yale 1877; M.D. Coll. P. & S. of N. Y. (Columbia) 1880.
- 1901 Tyler, Geo. E . . . . . California Bldg., Denver, Colo.  
B.S. Kansas Normal Coll. 1890; M.D. Long Island Coll. Hosp. 1896.  
Secy. State Board of Health; Prof. Medicine Gross Med. Coll.; Visiting Phys.  
St. Anthony and Arapahoe Co. Hosp.
- 1897 Ulrich, Chas. F . . . . . 718 Main, Wheeling, W. Va.  
A.B. Bethany Coll. 1846; M.D. Univ. of Louisville 1870.
- 1899 Upham, J. H. J . . . . . 106 E. Broad, Columbus, O.  
M.D. Univ. of Penn. 1894.
- 1892 Vail, J. B . . . . . 322 W. Market, Lima, O.  
B.S. Miami 1868; M.D. Med. Coll. of Ohio 1871.
- 1897 Van Benschoten, Wm. C . . . . . 63rd and Monroe Ave., Chicago, Ill.  
Ph.B. Northwestern Univ. 1891; A.B. Harvard 1892; M.D. Northwestern  
Univ. 1896.
- 1889 \*Van Bibber, W. C . . . . . Baltimore, Md.
- 1877 Vanderveer, John R . . . . . Monroe, N. Y.  
A.B. Univ. of the City of N. Y. 1850; M.D. Ibid. 1852; A.M. Ibid. 1853.
- 1890 Van Duyne, John . . . . . 318 James, Syracuse, N. Y.  
A.B. Princeton 1862; M.D. Ky. School of Medicine 1865.

§ Present whereabouts unknown.

\* Deceased.



- 1888 Van Hook, Weller, . . . 4043 Grand Bldg., Chicago, Ill.  
A.B. Univ. of Mich. 1884; M.D. Coll. P. & S. of Chicago 1885.  
Prof. Surgery and Clin. Surg. Med. School and Woman's Med. School North-  
western Univ.
- 1891 Van Pelt, Chas. L. . . . . Toledo, O.  
A.B. Univ. of Mich. 1876; M.D. Buffalo Med. Coll. 1878.
- 1888 Van Santvoord, Richard . . . 106 W. 122nd, New York, N. Y.  
A.B. Coll. of the City of N. Y. 1872; M.D. Bellevue Hosp. Med. Coll. 1875.
- 1879 Van Valzah, W. W. . . . . 40 E. 25th, New York, N. Y.  
A.B. Princeton 1873; A.M. Ibid. 1876; M.D. Jefferson Med. Coll. 1876.
- 1891 Vaughan, Victor C . . . 15 S. State, Ann Arbor, Mich.  
B.S. Mt. Pleasant Coll., Mo., 1872; M.S. Univ. of Mich. 1875; Ph.D. Ibid. 1876;  
M.D. Ibid. 1878. Se.D.  
Vice-president, 1894; President, 1901.  
Prof. Hygiene and Physiologic Chemistry Director Hygienic Laboratory,  
Univ. of Mich.; Dean Dept. Medicine and Surgery.
- 1898 Veasey, Clarence A . . . 116 S. 19th, Phila., Pa.  
M.D. Jefferson Med. Coll. 1890; A.M. Western Maryland 1896.  
Adj. Prof. Diseases of Eye Phila. Polyclinic; Demonstrator of Ophthal-  
mology Jefferson Med. Coll.
- 1890 \*Vermyne, J. J. B. (\*1898) . . . Boston, Mass.
- 1882 Vinton, Chas. H . . . Wernersville, Pa.  
A.B. Central High School Phila. 1865; M.D. Univ. of Penna. 1868.
- 1892 Voldeng, M. Nelson . . . 226 Rights of Pythias Blk., Des Moines, Ia.  
A.B. Lutheran Norwegian Coll. 1883; M.D. Coll. P. & S. Chicago 1887.  
Prof. Neurology, Psychiatry and Clinical Medicine Iowa Coll. P. & S.
- 1886 Von Klein, Carl H . . . 248 E. Erie, Chicago, Ill.  
M.D. Univ. of Prussia 1867.
- 1878 \*Wagner, Chas. K (\*1898) . . . Newark, N. J.
- 1888 Waldron, Martha M . . . Hampton, Va.  
A.B. Vassar 1872; M.D. Woman's Med. Coll. of Penna. 1881.  
Phys. Hampton Institute.
- 1889 Walk, James W . . . 737 Corinthian Ave., Phila., Pa.  
A.B. Lafayette 1875; M.D. Univ. of Penn. 1878.
- 1899 Walker, Gertrude A . . . 308 S. 13th, Phila., Pa.  
A.B. Smith 1885; M.D. Woman's Med. Coll. of Penna. 1892.
- 1900 Walker, J. B . . . 1617 Green, Phila., Pa.  
M.D. Univ. of Penna. 1872.
- 1888 Walker, John E . . . Thomaston, Me.  
A.B. Bowdoin 1881; M.D. Ibid. 1884.
- 1895 Walker, Samuel J . . . 105 Pine, Chicago, Ill.  
A.B. Yale 1888; M.D. Northwestern Univ. 1893.
- 1889 Ward, R. Halsted . . . 53 4th, Troy, N. Y.  
A.B. Williams 1858; M.D. Coll. P. & S. of N. Y. (Columbia) 1862.
- 1897 Warden, Carl C . . . 133 N. Spruce, Nashville, Tenn.  
Ph.B. Univ. of Mich. 1892; M.D. Ibid. 1895.
- 1889 Warner, Helen F . . . 53 Adams Ave., W. Detroit, Mich.  
A.B. Vassar 1868; M.D. Univ. of Mich. 1872.
- 1884 \*Warren, Chas. . . . . Washington, D. C.  
\* Deceased.

- 1888 Warren, Stanley P . . . . . 99 Free, Portland, Me.  
A.B. Yale 1869; M.D. Yale 1874.
- 1892 Warren, Wadsworth . . . . . 32 Adams Ave., Detroit, Mich.  
A.B. Olivet 1886; M.D. Univ. of Mich. 1889.
- 1884 Watson, Wm. Perry . . . . . 101 Bentley Ave., Jersey City, N. J.  
A.B. Rutgers 1875; M.D. Coll. P. & S. of N. Y. (Columbia) 1878.  
Member State Board of Medical Examiners.
- 1882 Waugh, Wm. F . . . . . 1416 E. Ravenswood Park, Chicago, Ill.  
A.B. Westminster 1868; M.D. Jefferson Med. Coll. 1871.
- 1883 Weaver, J. K . . . . . 612 DeKalb, Norristown, Pa.  
A.B. Bucknell 1861; M.D. Jefferson Med. Coll. 1867.
- 1888 \*Webster, Chas. E. (\*1892) . . . . . Portland, Me.
- 1888 \*Weed, Chas. L . . . . . Philadelphia, Pa.
- 1884 \*Weidman, W. Murray (\*1902) . . . . . Reading, Pa.
- 1892 Weitz, Joseph A . . . . . 509 3rd Ave., Detroit, Mich.  
A.B. Hillsdale Coll. 1876; M.D. Univ. of Mich. 1886.
- 1897 Welch, John C . . . . . Bellevue, Pa.  
A.B. Washington and Jefferson 1889; M.D. Medico-Chirurgical of Phila. 1893.
- 1888 Wells, George M . . . . . Wayne, Pa.  
A.B. Lafayette 1877; M.D. Univ. of Penna. 1885.
- 1897 Wentworth, Wm. W . . . . . 230 W. 65th, Chicago, Ill.  
A.B. Harvard 1883; M.D. Rush Medical Coll. 1889.
- 1895 Wentz, Alexander C . . . . . Hanover, Pa.  
A.B. Penn. Coll. 1879; M.D. Univ. of Penna. 1882.
- 1888 Weston, Edward B . . . . . 3975 Drexel Boulevard, Chicago, Ill.  
A.B. Bowdoin 1870; M.D. Rush Med. Coll. 1873.
- 1888 Wheeler, Geo. A . . . . . Castine, Me.  
A.B. Bowdoin 1856; M.D. Ibid. 1859.
- 1898 Wheelock, Wm. E . . . . . Morristown, N. J.  
A.B. Yale 1873; M.D. Coll. P. & S. of N. Y. (Columbia) 1876.
- 1882 Whitebeck, J. Ward . . . . . 209 East Ave., Rochester, N. Y.  
A.B. Univ. of Rochester 1867; M.D. Univ. of Penn. 1870.
- 1890 Whitcombe, Chas. R . . . . . Hotel Pelham, Boston, Mass.  
A.B. Williams 1876; M.D. Long Island Coll. Hosp. 1883.
- 1895 White, Wm. R . . . . . 7 Green, Providence, R. I.  
A.B. Dartmouth 1874; M.D. Harvard 1877.  
Phys. Rhode Island Hospital.
- 1888 §Whitney, Adaline S . . . . .  
A.B. Vassar 1873; M.D. Zurich, 1880.
- 1882 \*Whittaker, James T. (\*1900) . . . . . Cincinnati, O.  
Member of Council, 1891, 1896.
- 1899 Whittier, Francis F . . . . . Brookline, Mass.  
A.B. Colby 1881; M.D. Dartmouth 1884.
- 1894 Whittier, Frank N . . . . . Brunswick, Me.  
A.B. Bowdoin 1885; M.D. Ibid. 1889.  
Instructor in Pathologic Histology and Bacteriology Medical Department,  
Bowdoin Coll.
- 1877 \*Wickes, Stephen . . . . . Orange, N. J.  
Vice-president, 1877.

\* Deceased.

§ Present whereabouts unknown.

- 1885 \*Wight, Jarvis S (\*1901) . . . . . Brooklyn, N. Y.  
 1889 Wilcox, Dorvil M . . . . . Falls Village, Conn.  
 M.D. Berkshire Med. Coll. 1866; A.B. Williams 1884.  
 1890 Wilcox, Reynolds W . . . . . 749 Madison Ave., New York, N. Y.  
 A.B. Yale 1878; M.D. Harvard 1881; I.L.D. Marysville College 1892.  
 Prof. Medicine and Therapeutics N. Y. Post-Graduate Medical School and  
 Phys. to its Hosp.; Phys. St. Mark's Hospital.  
 1888 Williams, A. O . . . . . Ottumwa, Ia.  
 M.D. Univ. of Iowa 1875; A.B. Ibid. 1883.  
 1892 Williams, T. R . . . . . DeLancey, Pa.  
 B. S. Ohio Wesleyan Univ. 1878; M.D. Coll. P. & S. (Baltimore) 1882.  
 1898 Williamson, Edward L . . . . . 163 W. 74th, New York, N. Y.  
 A.B. Dartmouth 1889; M.D. Columbia 1892.  
 1898 Willits, Mary . . . . . Norristown, Pa.  
 A.B. Swarthmore 1876; M.D. Woman's Med. Coll. of Penna. 1881.  
 Assist. Phys. State Hospital for Insane.  
 1888 Wilson, Edwin F . . . . . 230 E Long, Columbus, O.  
 A.B. Kenyon 1882; M.D. Univ. of Penna. 1885.  
 Vice-president, 1899.  
 Member of Council, 1900.  
 1884 \*Wilson, Henry P. C., Jr. (\*1897) . . . . . Baltimore, Md.  
 1888 Wilson, James C . . . . . 1437 Walnut, Phila., Pa.  
 A.B. Princeton 1867; M.D. Jefferson Med. Coll. 1869.  
 President, 1896.  
 Prof. Practice of Medicine and Clin. Med. Jeff. Medical Coll.; Phys. Hosp.  
 Jeff. Med. Coll. and German Hosp.  
 1900 Wilson, W. Reynolds . . . . . 112 S. 20th, Phila., Pa.  
 A.B. Harvard 1886; M.D. Jefferson Med. Coll. 1888.  
 1890 Wing, Edgar D . . . . . Galesburg, Ill.  
 A.B. Illinois Coll. 1871; M.D. Univ. of Penna. 1873.  
 1886 Wing, Elbert . . . . . 4822 Lake Ave., Chicago, Ill.  
 A.B. Illinois Coll. 1875; M.D. Chicago Med. Coll. 1882.  
 Attend. Neurologist St. Luke's Hospital.  
 1880 \*Wing, Theodore T . . . . . Susquehanna, Pa.  
 1892 Wirt, Wm. E . . . . . 477 Prospect, Cleveland, O.  
 U. S. Naval Academy 1886. A.M. By Exam. Wooster 1889; M.D. Coll. P. &  
 S. N. Y. (Columbia) 1889.  
 1879 Witthaus, Rudolph A . . . . . 410 E. 26th, New York, N. Y.  
 A.B. Columbia 1867; A.M. Ibid. 1870; M.D. Univ. of the City of N. Y. 1875.  
 Prof. Chemistry, Physics and Toxicology Cornell Univ. Med. Coll. and  
 Univ. of Vermont.  
 1882 §Wolff, Henry A . . . . .  
 A.B. Amherst 1874; M.D. Coll. P. & S. of N. Y. (Columbia) 1877.  
 1897 Wood, Casey A . . . . . 103 E. Adams, Chicago, Ill.  
 A.B. Ottawa Collegiate Institute 1873; M.D. Univ. of Bishop's Coll. 1877.  
 Prof. Clinical Ophthalmology Coll. of P. & S.  
 1889 \*Wood, Robert W (\*1892) . . . . . Jamaica Plains, Mass.  
 1892 \*Woodbridge, Luther D (\*1899) . . . . . Williamstown, Mass.  
 1888 Woodman, Walter . . . . . 64 Sparks, Cambridge, Mass.  
 A.B. Harvard 1875; M.D. Ibid. 1883.

\* Deceased.

§ Present whereabouts unknown.

- 1898 Woodruff, Thos. A . . . . . 103 E. Adams, Chicago, Ill.  
M.D. McGill 1898.
- 1888 Woodside, Albert . . . . . St. George, Me.  
A.B. Bowdoin 1869; M.D. Ibid 1874.
- 1892 \*Woolley, C. N . . . . . Newburg, N. Y.
- 1884 Wordin, Nathaniel E . . . . . 174 Fairfield Ave., Bridgeport, Conn.  
A.B. Yale 1870; M.D. Jefferson Med. Coll. 1873.  
Phys. Bridgeport Hospital; Member State Board of Health.
- 1891 Wright, Adam H . . . . . 30 Gerrard, E. Toronto, Canada.  
M.D. Univ. of Toronto 1866; M.D. Ibid. 1888.
- 1899 Wright, Thompson B . . . . . Circleville, O.  
A.B. Kenyon 1883; M.D. Columbus Med. Coll. 1886.
- 1901 Wyman, B. L . . . . . 212½ N. 20th, Birmingham, Ala.  
A.M. Univ. of Alabama 1876; M.D. Univ. of Virginia 1878; Univ. of the  
City of N. Y. 1879.
- 1893 Wyman, Samuel E . . . . . Cambridge, Mass.
- 1884 \*Young, I. Gilbert (\*1899) . . . . . Philadelphia, Pa.
- 1886 Zenner, Philip . . . . . 335 W. 9th, Phila., Pa.  
A.B. Ohio Univ. 1870; M.D. Miami Med Coll. 1875.  
Lecturer on Neurology Medical College of Ohio.
- 1888 Ziegler, Samuel L . . . . . 1504 Walnut, Phila., Pa.  
A.B. Bucknell 1880; M.D. Univ. of Penna. 1885.  
Assist. Aural Surgeon and Chief of the Dispensary for Diseases of the Ear  
Hospital, Univ. of Penna.  
\* Deceased.

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*The fellows are urgently requested to advise the secretary at once of any error or omission, and to keep him informed of any changes from time to time. It is the purpose to make this catalogue biographical as to degrees and professional appointments if a sufficient number of fellows cooperate by furnishing the necessary data.*

## CONSTITUTION.

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### ARTICLE I. TITLE.

This association shall be known as the AMERICAN ACADEMY OF MEDICINE.

### ARTICLE II. OBJECT.

The object of the Academy shall be—

1. To bring those who are alumni of classical, scientific, and medical schools into closer relations with each other.

2. To encourage young men to pursue regular courses of study in classical and scientific institutions before entering upon the study of medicine.

3. To extend the bounds of medical science, to elevate the profession, to relieve human suffering, and to prevent disease.

### ARTICLE III. MEMBERSHIP.

SEC. 1. The membership of the Academy shall consist of fellows and honorary members.

SEC. II. The fellows shall be alumni of respectable institutions of learning, having received therefrom—

(1) The degree of Bachelor of Arts, or Master of Arts, after a systematic course of study, preparatory and collegiate; but when a candidate has not received either of these degrees in course, other evidences of a preparatory liberal education, which shall be considered as equivalent to the same by the council, may be accepted in lieu of a degree by the Academy;

(2) The degree of Doctor of Medicine, after a regular course of study, not less than three years, under the direction and instruction of preceptors and professors; or

(3) When a candidate is an alumnus of a foreign institution, or institutions, not granting the degree of Bachelor or Master of Arts, or of Doctor of Medicine, a certificate, or certificates, or a license, which shall be considered as equivalent by the council, may be accepted in lieu thereof by the Academy.

(4) The fellows shall be reputable graduates in medicine.

SEC. III. Honorary members shall consist of gentlemen in the medical profession, at home and abroad, who have made important contributions to medical science.

SEC. IV. The honorary members shall not exceed five for every one hundred fellows. They shall be entitled to attend the meetings of the Academy and participate in the proceedings, but shall have no right to vote or hold office.

**SEC. V.** The consent, by ballot, of two-thirds of the fellows present shall be necessary for the election of fellows or honorary members.

**ARTICLE IV. OFFICERS.**

The officers of the Academy shall be a president, four vice-presidents, a secretary, an assistant secretary, and a treasurer. These shall be elected by ballot from the fellows, to serve one year, or until others are elected. The president is ineligible for two successive terms.

**ARTICLE V. COUNCIL.**

The council shall consist of the officers of the Academy, ex-presidents, and one fellow for every twenty or fraction thereof in attendance. The latter shall be appointed annually by the president.

**ARTICLE VI. MEETINGS.**

The Academy shall hold one regular meeting each year.

**ARTICLE VII. REVENUE.**

The sources of revenue shall be the initiation fees, dues, the transactions of the Academy, and the certificates of membership. The initiation fee of five dollars shall be paid before admission and registration. A fee of one dollar shall be due at each subsequent annual meeting; the neglect to pay this fee for three successive years shall cause the name of the fellow so neglecting to be entered upon a separate roll to be known as the list of suspended fellows: *Provided*, that all fellows elected previous to, or during, the meeting for 1898 shall not be liable to this penalty.

**ARTICLE VIII. DISCIPLINE.**

**SEC. I.** The fellows of the Academy in their relations with each other and with their fellow men agree to be governed by the principles embodied in the present code of ethics of the American Medical Association, and by the constitution and by-laws of the Academy.

**SEC. II.** A complaint being duly made to the council by two fellows against any fellow or honorary member for a violation of the constitution or by-laws of the Academy, the ethical principles therein recognized, or the laws of morality, shall be heard and considered by the council, notice of the same, including the time and place of hearing, being served on the accused by the secretary at least four weeks beforehand that he may present his defense; and the sentence of the council, whatever it may be in such case, shall be final.

**ARTICLE IX. QUORUM.**

Five fellows of the Academy shall constitute a quorum at any regularly called meeting.

**ARTICLE X. CERTIFICATE.**

A Latin certificate of fellowship, bearing the seal of the Academy and the signature of the officers, shall be issued to any fellow on payment of its actual cost.

## ARTICLE XI. DELEGATES.

Delegates may be sent by vote of the Academy, or by the council when the Academy is not in session, to medical associations in foreign countries; and delegates may also be received from such associations.

## ARTICLE XII. AMENDMENTS.

Every proposal to alter or amend the constitution of the Academy, shall be made in writing and entered on the minutes. If two-thirds of the fellows present at the next regular meeting vote for such alteration or amendment, it shall be adopted.

## BY-LAWS.

## ARTICLE I. DUTIES OF THE OFFICERS

SEC. I. The president shall preside at the meetings of the Academy and of the council, preserve order, announce the admission of fellows and members, appoint all committees not otherwise ordered, fill vacancies which may occur in the council and in committees, and name the time and place of meeting for the council. When requested by a majority of the officers to call a special meeting of the council, he shall direct the secretary to call such meeting, and shall indicate the special subjects to be considered. He shall deliver an address before the Academy at the close of his term of office, and perform such other duties as the constitution, by-laws, and parliamentary usages require.

SEC. II. The vice-presidents, when called upon, shall assist the president in the performance of his duties. In his absence, or at his request, one of them, in the order of seniority, shall take his place in the Academy or in the council, and may deliver the annual address.

SEC. III. The secretary shall have charge of the records and the correspondence of the Academy. He shall receive all proposals for membership presented in due form and shall lay them before the council. He shall receive the initiation fees and give vouchers for them. He shall pay the same to the treasurer and shall take his receipt therefor. He shall enter in the register of the Academy the names of all the fellows admitted from year to year with their post-office address, place of nativity, time of birth, degrees, the institution conferring them, and the dates thereof; and in another column the time of their demise, when that shall occur. He shall enter in another part of the register the names of the honorary members. He shall keep an accurate and legible account of the acts of the Academy and of the council, and shall preserve the same carefully and deliver them to his successor when elected. He shall edit the transactions in a manner and style agreed upon by the council. He shall give due notice in the medical journals of the meetings of the Academy. He shall notify committees of their appointment, and shall, in connection

with the presiding officer, certify all acts of the Academy and of the council.

SEC. IV. It shall be the duty of the assistant secretary to assist the secretary in the meetings of the Academy as well as in the meetings of the council, and in his absence to take his place.

SEC. V. The treasurer shall collect and take charge of the funds of the Academy. He shall pay out of these only such sums as are ordered by the academy or by the council, and shall take vouchers for the same. He shall annually present a statement of the finances of the Academy, which shall be referred to a committee of three fellows to be audited. He shall hold the funds of the Academy in trust, and shall give security for faithful performance of his duties when the receipts shall exceed \$500 annually. He shall also take charge of its transactions and distribute them on the receipt of the price of the volume, and may sell them to any person. He shall deliver all funds in his possession to his successor, when elected.

## ARTICLE II. DUTIES OF THE COUNCIL.

SEC. I. The council shall convene at the call of the president, and shall consider and act upon all proposals for membership presented in due form, as indicated in the by-laws, signed by at least one fellow, and countersigned by the secretary. If the council is satisfied that the qualifications of the candidate are such as are required by the constitution, it shall report the same to the Academy, with the words "Approved by the council" endorsed on the proposal. In the case of those who may not be reported, or who do not receive a vote of two-thirds of the Academy, no minute shall be kept.

SEC. II. It shall be the duty of the council to consider and recommend plans for promoting the objects of the Academy; to superintend its interests; to make arrangements for the meetings; to determine finally all questions of medical ethics arising among the fellows and members; to decide upon, and superintend, all its publications; to authorize the disbursement of unappropriated funds in the treasury for the payment of current expenses; and to perform such other duties as may from time to time be committed to it by the Academy.

## ARTICLE III. COMMUNICATIONS.

SEC. I. Papers on medical subjects may be read before the Academy, provided they have been deposited with the secretary of the council at least thirty days before the time of the regular meeting, and have also been approved by the council.

SEC. II. All motions or resolutions, excepting those which relate to ordinary and routine business, shall be referred to the council without debate. Unless otherwise instructed by the Academy, the council shall report the resolution back with its recommendation at the next executive session following the introduction of the resolution.



**ARTICLE IV. TIME AND PLACE OF MEETING.**

**SEC. I.** The Academy shall hold a regular meeting annually, the place and time to be determined upon at the previous regular meeting; but both place and time may be changed by the council for reasons that shall be specified in the announcement of the meeting.

**SEC. II.** The council may call special meetings of the Academy whenever, in its judgment, it is necessary; and it shall call a special meeting whenever it is requested to do so by twenty-five fellows of the Academy.

**SEC. III.** At any special meeting only such business can be transacted as is mentioned in the call for the meeting.

**SEC. IV.** The minutes of all special meetings shall be sent to the secretary of the Academy within thirty days after the meeting of the Academy for its information and, with the exception of the fellows elected, be subject to its revision or veto. The transactions of all special meetings shall be a part of the proceedings of the year designated by the previous annual meeting.

**ARTICLE V. THE ORDER OF BUSINESS.**

The order of business shall be fixed by the council.

**ARTICLE VI. AMENDMENTS.**

Every proposal to alter or amend the by-laws shall be made in writing; and if such alteration or amendment receive the unanimous consent of the fellows present, it shall be adopted; but if objections be made, the alteration or amendment shall lie over until the next regular meeting, when, if it receive the vote of two-thirds of the fellows present, it shall be adopted.

## ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

*President*—Victor C. Vaughan, Ann Arbor, Mich.

*First Vice-President*—Wm. L. Rodman, Philadelphia, Pa.

*Second Vice-President*—H. Bert Ellis, Los Angeles, Cal.

*Secretary*—Bayard Holmes, Chicago, Ill.

*Judicial Council*—Thomas Hawkins, Denver, Colo., term expires 1903; E. C. Dudley, Chicago, Ill., term expires 1904; W. J. Means, Columbus, Ohio, term expires 1904.

CALL AND PROGRAM FOR MEETING AT SARATOGA, N. Y., MONDAY, JUNE 9TH, 10 A.M.

The next meeting of the Association of American Medical Colleges will be held at such place as the local committee may designate in Saratoga, Monday, June 9th, at 10 A.M. The program will consist of two portions, one of which is educational and open to visitors. The several members of the Association of Southern Medical Colleges are hereby invited to be present and take part in the discussion. The second part of the program relates to the business of the Association and will be taken up at the second session at 3 P.M. the same day.

### PROGRAM.

FIRST PORTION, 10 A.M. TO 1 P.M.

1. President's address. Professor Victor C. Vaughan, of the University of Michigan.
2. Symposium on the following subjects:
  1. Should a knowledge of French and German be required for admission to medical schools; if so, to what extent should such a knowledge be demanded?
  2. What should be the requirement in Latin, and should this be waived for any cause?
  3. What should be the minimum requirement in mathematics?
  4. To what extent should a knowledge of the biologic sciences be required for admission?
  5. To what extent should a knowledge of physics and chemistry be demanded?

This symposium will be participated in by the following gentlemen and any others who choose to enter the discussion:

1. Hon. James Russell Parsons, Jr., secretary of the Board of Regents of the University of the State of New York.

2. Dr. George M. Kober, of Georgetown University. (Dr. Kober will discuss the first of the above-given questions.)
3. Dr. Robert Reyburn, dean of Howard University.
4. Dr. W. H. Earles, of the Milwaukee Medical College.
5. Dr. Joseph T. Smith, of the Woman's Medical College of Baltimore.
6. Dr. John L. Heffron, of the Syracuse Medical College.
7. Dr. E. A. DeSchweinitz, dean of the medical department of Columbia University. (Dr. DeSchweinitz will discuss questions Nos. 4 and 5.)
8. Dr. O. U. B. Wingate, of the Wisconsin Medical College.
9. Dr. R. L. Whitehead, dean of the medical department of the University of North Carolina.
10. Dr. G. W. Hubbard, dean of the Meharry Medical College.

SECOND PORTION, THE BUSINESS SESSION, 3 P.M.

1. Report of the secretary.  
(See Transactions of the Association of American Medical Colleges printed in the Bulletin of the American Academy of Medicine for August, 1901.)
2. The roll-call of members.
3. Report of committees.
  1. Committee on Uniformity of Records and Credits : Drs. R. H. Whitehead, W. S. Hall, R. O. Beard.
  2. Other committees.
4. Treasurer's report.
5. Report of judicial council.
6. New business.
7. Adjournment.

The following amendments to the Constitution have been suggested for consideration :

ART. III, SEC. 1. Each college holding membership in this Association shall require of each student before admission to its course of study a certificate of having successfully passed an examination, the minimum of which shall be as follows :

ART. III, SEC. 1, Paragraph 6. In German, an examination which shall show the student's ability to read ordinary medical or scientific German with sufficient readiness to use German text-books in medicine.

ART. III, SEC. 1, Paragraph 7. In French, an examination which shall show a student's ability to read ordinary medical or scientific French with sufficient readiness to use French text-books in medicine.

ART. III, SEC. 1, Paragraph 8. In French or German an examination which shall show the student's ability to read ordinary medical or scientific French or German with sufficient readiness to use text-books in medicine in one or other of these languages.

ART. III, SEC. 1, Paragraph 9. The by-laws may prescribe in more detail the provisions of the several paragraphs in this section and the parties by

whom the examination shall be held and whose certificate shall be acceptable.

ART. II, SEC. 4. Substitute ten dollars (\$10.00) for five dollars (\$5.00).

ART. III, SEC. 6. Paragraph C to be stricken out, thus giving no credit for time to graduates in dentistry, pharmacy, or veterinary medicine.

The Bulletin of the American Academy of Medicine, Charles McIntire, M.D., Editor, Easton, Pa., is the official organ of this Association in which the Transactions of the Association have been published since the first meeting. The bibliography of the Association will be found in the Transactions of the Association for 1899 published in the Bulletin for June, page 3. A bound volume of the Transactions have been forwarded to the dean of each medical college and to the secretary of each State Board of Health. The secretary cannot recommend too strongly that the members of the Association support the Bulletin liberally by their subscriptions.

BAYARD HOLMES, *Secretary.*

CHICAGO, May 1, 1902,  
104 East 40th St.

## SECRETARY'S TABLE.

### THE SARATOGA MEETINGS.

The American Academy of Medicine will meet at the Kensington, on Saturday morning, June 7, at eleven o'clock. The president's address will be delivered on Saturday evening, and the social session will be held on Monday evening. The railroad rates are the same as those given to the American Medical Association, of which full particulars will appear in the journal of that association.

Circulars of information regarding the meeting and programs will be mailed on request.

The Association of American Medical Colleges publishes its program in full on another page.

The National Confederation of State Medical Examining and Licensing Boards meets on June 9th, under the presidency of Dr. N. R. Coleman, of Columbus, O. The program, which now arranging, promises to contain a number of interesting papers on pertinent topics. The secretary, Dr. A. Walter Suiter, of Herkimer, N. Y., will be pleased to mail a copy of the program when issued to any one making the request.

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The first annual report of the New York State Hospital for the care of crippled and deformed children is on our table. This hospital is a State institution, receiving an appropriation for its maintenance. Its medical work we leave to other journals to review; that the State should provide treatment for this form of defectives, as much so as for the blind or feeble-minded, is a proposition requiring no argument. Indeed greater benefits may be expected here since so large a proportion can be so benefited as to make active wage-earners in later years and removed from the class of dependents.

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Cleveland is to be congratulated. While the *Cleveland Medical Gazette* and the *Cleveland Journal of Medicine* were journals

above the average, their consolidation in the *Cleveland Medical Journal* permits a much stronger journal than was possible for either journal to become with the other as a rival, no matter how friendly. This could be foreseen, and the hindsight, as shown in the few numbers of the new journal already issued, more than fulfils the brightest prophecy possible.

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The chairman of the Committee of Arrangements for the twenty-eighth annual meeting of the Mississippi Valley Medical Association, Dr. A. H. Cordier, has announced the dates of the next meeting in Kansas City, Mo., as October 15, 16, 17, 1902.

The president, Dr. S. P. Collings, of Hot Springs, Ark., has announced the orators for the meeting: Dr. C. B. Parker, of Cleveland, O., to deliver the address in "Surgery," and Dr. Hugh T. Patrick, of Chicago, the address in "Medicine," selections which will meet with the approval of every physician in the Mississippi Valley.

A cordial invitation is extended every physician in the United States, but especially of the Valley to attend this meeting and take part in its proceedings. Titles of papers should be sent the secretary, Dr. Henry Enos Tuley, 111 W. Kentucky St., Louisville, Ky., at as early a date as possible to obtain a favorable place on the program.

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#### LITERATURE NOTE.

*The Cow Pea* is the title of the latest publication issued by the Experiment Farm of the North Carolina State Horticultural Society at Southern Pines, N. C. This book, neatly bound and illustrated in plain and concise manner, discusses the value and uses of this important crop, the cow pea. Every reader can get a copy free by writing to the Superintendent of Experiment Farm, Southern Pines, N. C.

# BULLETIN

OF THE

## American Academy of Medicine

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VOL. V.

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No. 12.

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THE AMERICAN ACADEMY OF MEDICINE is not responsible for the sentiments expressed in any paper or address published in the BULLETIN.

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### REPORT OF THE COMMITTEE ON INTERSTATE RECIPROCITY AND UNIFORM MEDICAL LEGISLATION.

EMIL AMBERG, M.D., Secretary, Detroit, Mich.

Uniformity of legal requirements in so far as it relates to tests of qualification of applicants for license to practise medicine is not only possible but very desirable, and, we believe, reasonably easy of attainment. To this end the law in any state should require, or authorize, the examination of applicants for license by a competent examining board.

The first step toward interstate reciprocity and uniform medical legislation must be established in the various political divisions by forming the medical laws so that interstate reciprocity is allowed.

The second step consists in establishing the standard for physicians who are permitted to practise.

The third step consists in an arrangement by which the finding of one board may be accepted by another board.

The committee can report with satisfaction that the progress along all lines mentioned has been satisfactory during the last year.

In regard to the first point, we can report that the law permits reciprocity in the following political divisions:

District of Columbia, Delaware, Illinois, Indiana, Kansas,

Maryland, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Virginia, Washington, and Wisconsin.

Concerning the second point, we can note with satisfaction the progress in several divisions, *e. g.*, Indiana, Washington.

Concerning the third point, it is not necessary to indulge at length in enumerating the work done, because this very Confederation is continually serving the purpose mentioned. However, we must record the fact that the New England states held their second meeting and thus have shown to the country that the division into working groups is practicable and desirable. The constitution of the New England States Confederation of Medical Examining and Licensing Boards can be found in the monthly Rhode Island State Board of Health Bulletin, January-February, 1901.

The state of New Jersey must also be especially mentioned for the commendable step taken by its medical board. We read in the Tenth Annual Report, pages 9 and 10, in part :

#### ENDORSEMENT OF MEDICAL LICENSES FROM OTHER STATES.

During the past year this board has taken an advanced step in the direction of interstate reciprocity of medical licenses. This problem has been discussed in the meetings of the National Confederation of State Medical Examining and Licensing Boards for several years past, with but little progress toward its solution. State sovereignty forbids the establishment of a National Examining and Licensing Board whose certificate would confer the right to practise in all the states. The question, therefore, naturally reverts to the state medical boards and to their securing such legislation as will make the minimum academic and medical requirements, and the kind and grade of state examination, equal to or substantially the same in the different states. When this unity of aim and action is attained, reciprocity of medical license between the states can be justly adopted.

This board desires to extend every possible professional courtesy to licentiates of other state examining boards, whose requirements and examinations are substantially the same as those of this board. To meet this end this board, at the annual meeting in July, decided to endorse the certificate of examination and license of any state examining and licensing board in the United States, in lieu of an examination, under the following conditions :

1. That the academic education of the candidate meets the requirements of this board.
2. That the candidate's period of medical study meets the requirements of this board.



3. That the candidate must have passed a state medical examination of substantially the same grade and kind as that required by this board, and must have been duly licensed.

4. That the candidate must have obtained a general average of not less than 75 per cent. in the subjects examined.

It has been suggested to the committee that uniformity could be furthered by the recommendation on the part of this Confederation to the Association of American Medical Colleges that the latter adopt the standard of minimum requirements adopted by this Confederation at the Columbus meeting, 1899.

Facts which cannot be disputed make it absolutely necessary that continual and thorough control of all parts of the medical education be exercised by members of the examining boards personally. It has been shown that the announcement of a medical college may be one thing and the college itself may be another thing. Although this discovery does not reflect upon all colleges, the members of the Confederation are compelled, in fulfillment of their sworn duties towards the public, to base their judgment and their actions solely upon their own findings.

The demand for uniformity of medical education is apparent ; the establishment of uniformity is possible ; it can be established through the examining boards, aided by the profession and by the public.

The committee comes to the following conclusions :

1. The acceptance by the weaker divisions without examination of applicants from states having higher requirements, without demanding reciprocal recognition, and the discrimination of medical boards against inferior schools in their own states reveals a commendable spirit.

2. As a step toward interstate reciprocity, your committee would commend the action already begun of reciprocal arrangements and agreements between the boards of the several states having laws which provide for reciprocity, and whose requirements are similar. This will result in the formation of groups of states with established reciprocity.

For instance : Minnesota, Wisconsin, Illinois, Iowa, Ohio, Indiana, Kentucky, Michigan, may form a working group, which group can do a good deal towards the final aim, without estab-

lishing, at present, complete interstate reciprocity, which, at this time, might be impractical.

3. It is recommended that the members of the Confederation from states in which the standard of requirements is not yet sufficiently high use faithfully the argument that interstate reciprocity can be obtained for the practitioner of that state only upon the basis of such legislation as will bring the standard up to that required in the states with which they intend to establish reciprocity.

The three principal points to be considered are :

(a) That the law in any political division should require, or authorize, the examination of all applicants for license by a competent examining board.

(b) That to be eligible to examination the applicant should be required to furnish to the examining board evidence of having graduated from a reputable medical college in good standing with the board in the state in which said college is located and with the board to which application is made.

(c) Examinations should be uniform throughout the states as to subjects or branches upon which examination is required.

The committee believes that it would be well for the National Confederation of State Medical Examining and Licensing Boards to agree upon the branches upon which applicants should be examined, to the end that uniformity of requirements by the various boards may be attained and that the percentage required in each subject and the manner of conducting the examinations, together with the rules to be enforced in each examination, should all be uniform.

4. Your committee would urgently recommend that reciprocity between the examining boards of the country on all questions pertaining to the welfare of the public and the elevation of the profession be maintained. To this end there should be the fullest and freest communication between the boards, which should not be limited to their official reports.

#### DISCUSSION.<sup>1</sup>

Dr. Henry Beates, Jr., Philadelphia, Pa. :

There is one point in the report which dealt with a principle, and one

<sup>1</sup> The discussion is printed from the copy as furnished by the secretary of the Confederation, and has not been submitted for revision by the Bulletin to the speakers.

which, at first sight, is very seductive in its argumentative value, but which upon close observation demonstrates the weaknesses which are the greatest dangers with which this body has to contend. The inconvenience of progress, if made less by conforming to the persistently active processes of low standard, is not a courtesy, it is a surrender, and something against which we must carefully guard.

The other point, which is of great value, refers to the communication of boards with boards. I know of nothing that will disclose the commercialism of medical education to this body more effectually and more advantageously from all points of view than for each one of us to know that this and that particular medical college are recreant to their trust, and the only way this body can become familiar with the facts is by such intercommunication as the committee recommends. I emphasize that recommendation, and would urge that some official steps be taken by the Confederation by which this intercommunication will be an established factor in our important work.

Dr. Wm. S. Foster, of Pittsburg, Pa. :

I have listened to this report with a great deal of interest, and commend the gentleman for the thought he has given it, but after all we are about in the position we were before. The trouble with this whole matter is the apathy of the profession themselves, and that is demonstrated this morning by the small audience we have here at this time. The profession themselves are responsible for the standing of the boards and for the authority they have throughout the states. As matters are at present, it is simply impossible to have reciprocity. While it is said that New Jersey is anxious and willing to establish reciprocity, yet it gives a standard that can be met by but very few boards in this country—probably half a dozen. There is just that difference, but enough to prevent reciprocity. Some of the states, Illinois in particular, have gone back instead of going forward. I believe Illinois has now accepted the diplomas of graduates of their own colleges, licensing them without examinations. They have added to the preliminary examination Latin and Greek. They would likely not surrender to New York, nor will New York surrender to them. Unless the profession at large takes greater interest in this work, and we can have more privileges for our boards, the matter is about at a standstill at present. I do not wish to be understood as throwing cold water on the matter, but we had better look at the facts as we go along.

Dr. James A. Egan, of Springfield, Ill. :

If I understood the last speaker rightly, he stated that the Illinois State Board of Health accepted the diplomas of graduates of the chartered medical colleges in Illinois without examination.

Dr. Foster.—That is substantially what I said.

Dr. Egan.—There is no truth in it.

Dr. Foster.—Of course, you ought to know, but I believe such information was contained in a circular which I received.

Dr. Egan.—Let me explain. The act of 1887, which has been out of force for two years, permitted the board to recognize the diplomas of colleges in good standing as determined by the board. The present law requires that the board shall examine all applicants except the graduates of medical colleges in Illinois in good standing, as determined by the board, who may be granted certificates of examination. The state board of health has never granted a certificate without an examination, and so long as the present board continues never will.

Dr. Foster.—I believe that is optional with the board. With the board of Pennsylvania it is not optional, nor with the board of New York.

Dr. J. N. McCormack, of Bowling Green, Ky. :

I think Dr. Foster has touched the keynote of this whole question. The apathy of the profession in regard to all these matters, not only of reciprocity, but of medical legislation and licensure, is a matter not only of regret but of alarm to those who have interested themselves in this subject, and who fear, on account of this apathy, we may lose in many of the states much of the ground that we have gained. The attendance upon this official representative body should be a large one, instead of a small one, as it is to-day, and it is an indication of apathy on the part of the men who are engaged in this work. This small attendance should not be taken as representative.

I have had occasion in the last year to give more than usual thought to this subject in consequence of being a member of the Committee on Reorganization of the American Medical Association, and the facts have been emphasized that there is none of that coordination between the states in regard to methods that there ought to be, and that there is not the assistance from the rank and file of the profession that there ought to be within the states. We have found that the state medical societies are moving in opposite directions to accomplish the same purpose. Methods are being urged in direct conflict with what is being sought in other ways; that while one state is discussing a certain law, another is attempting to have an experiment put upon its statute books which has proved a failure in other states, as has recently happened in Texas. I only rise to say that the Committee on Reorganization of the American Medical Association has presented a scheme, which will be placed in your hands to-day, which attempts to federate all medical societies of this entire country, to bring into relation the county societies with the state societies, and to bring the state societies into federated relation with the Association, so that we can have coordination and support from every doctor within the confines of the United States, about 100,000 in number. There should be co-operation between the states in matters of national legislation, and co-operation in state legislation will enable the profession to make its influence felt, and it makes it easy, to my mind, if the provisions which we

have proposed to the Association are adopted. It simplifies questions of medical education, of medical licensureship, and of reciprocity. It gives us a legislative body within the Association which, during the four days the general body is in session, will meet as a section and devote its entire time to the interests of the profession in matters of legislation and similar measures. A similar movement should be organized in all states, not perhaps upon identical lines, but with a desirable degree of uniformity. Again, in every state there should be a body which shall devote its time during each session to this work, as is done in Massachusetts and Alabama. I have devoted considerable of my time to this work during the past year, and I have been impressed with the fact that there is not that coordination between the states that there should be, and that we do not wield the influence we should as a profession in matters of medical legislation. The state of Alabama, with its 1,700 physicians, is perfectly organized. When they request the senators and representatives to support a certain line of legislation in Congress it is done without dissent. It is a united body. Almost every doctor in the state of Alabama is a member of a county society, and by virtue of that he is a member of the state society. The fees are sufficient to put ample funds in the treasury of the state society, to keep a committee at the capitol, if necessary, at every session of the legislature to explain these matters. They have gotten rid of jealousy in their local profession so that they stand as one man. They have the respect of legislators, judges, the governor, the congressmen, and senators, a condition entirely possible in any state. With a great deal of labor we have presented a scheme which we hope will meet with the approval of all the states, and that in a short time organizations along the lines we have suggested will be formed, so that we may have the greater proportion of our entire country coordinated after this fashion. I will ask the members of the Confederation to give this report careful consideration when it is placed in their hands. I consider it pertinent to the question of reciprocity. If we are successful in what we have undertaken, it places within early realization all of those beneficent attempts on our part and very greatly simplifies our work.

Dr. A. W. Alvord, of Battle Creek, Michigan :

I am very much interested in the scheme that has been ventilated and proposed by our honored president, and I am pleased to hear what he has had to say about it ; and yet, it seems to me, it is somewhat at the expense of a body of medical men which is more important to our country than any other body that will meet this week, and that is this Confederation. This body has to do with the shaping of the policies which are to control the future medical profession of America, and that so few of us should meet here and perhaps get through with a single session, does not meet with my idea of performing the duties entrusted to this body. It may be, that I do not fully grasp what you are doing, for this is my first attempt to unite with you in this work. It is an important matter to me, because our board feels that

this is the important thing to be considered at St. Paul, the subject of medical education and preparation for work, and how it shall be regarded by our several state boards.

I was very much interested in Dr. Amberg's report. It is conservative. It is along very good lines, but it lacks fruition. This will undoubtedly come some day if our work is of the faithful, proper kind. It may be that I have enlarged too much in my own mind upon the real influence that such a body as this ought to exercise upon all of our state boards in their work. Being somewhat familiar with what many of the state boards are doing, I am surprised that the quality of the work is not of a higher grade. I expected to come here and learn many things from you; I expected to come here and see the weak-kneed men in the different states, who have very good laws, but the personnel of whose board is weak in its executive functions, strengthened and put on a higher plane of action. If this is to be given the go-by at a single, short session, it is hardly worth while to attempt to do much with this body. It can be made a wonderful power by hard, faithful work, but we cannot expect to accomplish much at a single session, with only a score or so in attendance.

Dr. Wm. A. Spurgeon, of Muncie, Ind. :

The remarks of the gentleman who has taken his seat are along the line of a discussion that took place a year ago, namely, that we do not devote sufficient time to the work of the Confederation. However, there are a few points that we ought to keep constantly before us, and one of them I believe to be cardinal, which is this, that this Confederation possesses no legal power and can possess no legal power. It cannot enforce anything that it undertakes to do. When it comes to the question of enforcing anything, it cannot do it. It has not the power to do that. But, as the doctor stated a moment ago, it can make itself a wonderfully strong influence for good, in that it can become an advisory body, and the source of education, instruction, encouragement and strength to those bodies that have the authority to accomplish work and can execute law. To that end, sufficient time ought to be devoted to these questions that arise that they may take tangible and intelligent shape and go out to the profession through the Confederation in such a manner that no mistake may be made. Here is the point I want to emphasize: If we take up a question which is distinctly vital to this country, and give it half-hearted and careless consideration, and say to the licensing boards of the entire country, this is the way it ought to be, without sufficient consideration, we may do more harm than good. I believe that before the Confederation commits itself on any proposition, it should be thoroughly considered and digested and given the impetus that this Confederation may give it, and not until then.

There are some things that have arisen this morning which are important. Our board suggested a few things that I should bring up here, and that ought to be referred to a committee, and in all probability the time will not permit of sufficient consideration of these questions; among them are the questions of uniformity of operations by the boards themselves—questions regarding

the laws of various states, for you understand that in some states the laws give a certain amount of leeway to the examining boards. Other questions for discussion are the subjects that shall be required for examination, the rules of examining boards, the percentage demanded, and what may constitute a legitimate basis for credit. These are vital questions upon which we ought to be able to reach some degree of united action.

The question of reciprocity is an exceedingly interesting one to the profession at large. We must not get discouraged by reason of the fact that we cannot progress as rapidly as we desire. It is impossible for us to accomplish what we desire immediately or even in the near future, but reciprocity is a question that interests the profession, and the people demand that it should be given constant and careful attention by this Confederation. The examining boards throughout the country are not averse to the idea of extending rights to the thoroughly honorable, competent and honest men who may see fit to go into any of the political divisions of the country and practise medicine. They are not afraid of that. So the whole question resolves itself into one of competency and honesty. A very competent man may be dishonest; he may be the most consummate rascal, and ought not to be permitted to practise medicine anywhere. At the same time, the examining boards of this country may by cooperation and intercommunication and rules agreed upon, sooner or later, determine by some method the competency, honesty, and integrity of men. When it comes to the question of requiring an examination of every man who comes into my state or your state to practise, you know that you hesitate and bite your fingers when the question comes up. How would any of you men feel if you had to sit in judgment on such a man as Dr. Senn, for instance, who, on account of ill-health, might want to change his place of practice. He might want to go to California or southern Georgia. The people of that community, knowing this great man's ability and skill, would want his counsel and advice, and how would you feel to sit in judgment on the reputation and ability of such a man as that, and say, "you must come before me and be examined." I do not want such state of affairs in my state, neither do you. How shall we reach a fixed rule whereby we can separate this class of men from quacks and charlatans, who are going about fleecing their fellow men, and who are not working for the interest of humanity, because they are an integral part of it. These are vital questions to be considered. While there is no more interesting question than that of reciprocity, at the same time we will have to approach it with great care and give it the thorough and careful consideration that it demands. We cannot jump at any fixed rule by which this may be done. I want to offer a suggestion. Will not the laws in the several subdivisions of this country justify, and are they not sufficiently flexible, to clothe examining boards with power and authority in the matter of investigating and determining the qualifications of men? I submitted the matter to our attorney-general, and I said to him, in the event of a member or members of this board know personally that a man is thoroughly honorable

and completely and efficiently equipped for the practice of medicine, ought not their personal knowledge of that man carry great weight, and could not the board permit such a man to practise medicine without being subjected to the rules and requirements of the board? He said, "From a legal standpoint, no." But we have found out that the decisions and opinions of attorney-generals are not hard and fast, and the state boards of the country may move forward in this matter, if they have the moral courage to do so. In our own state the law has clothed us with authority to do certain things in regard to reciprocity, and we have submitted the matter to the attorney-general, and he said we could not do it. But we went right on and did it nevertheless, and our actions have not been questioned, and I do not think they ever will be. We have an amended law or a provision of the statute which will give us more power than we have had in the past. It is such questions as these that will interest the profession and should be brought before the Confederation for free discussion.

Dr. H. B. Dale, of Oshkosh, Wis.:

*Mr. President.*—I notice that Dr. Currans, president of the Wisconsin State Board of Medical Examiners, is in the hall, and I am sure the Confederation would be glad to hear from him.

The President:

We shall be glad to hear from Dr. Currans on this subject.

Dr. J. R. Currans, of Two Rivers, Wis.:

*Mr. President.*—I will not detain you but a minute or two. I simply want to tell you how Wisconsin stands in regard to this matter. I fully agree with what the previous speakers have said. I was not here in time to hear the first part of the question discussed. I am happy to say, that our board feels that it wants to come to the question of reciprocity as soon as possible. Our board has been handicapped very largely because it is young. We have not reached the fourth year of our existence until the first of July. We have had two amendments to the original law, and under the new law I believe our standard is equal to that of most other states. There is not a member of our board but what is anxious to have the matter of reciprocity between states settled. We have also a clause in our law allowing us to recognize licenses from other states whose requirements are fully up to ours. If all states could get such a clause in their law we would not have any trouble in bringing about reciprocity in a few years.

Dr. James A. Egan, of Springfield, Ill.:

As it is impossible for the states to enact uniform legislation, it is likewise impossible for us to get reciprocity. The solution of the problem of reciprocity lies in the enactment of laws in every state permitting the different states to recognize the licenses issued by other boards having requirements which the state boards deem equal to their own.



Dr. E. B. Harvey, of Boston, Mass.:

It is known to some of you that I have never entertained a very favorable opinion on the subject of reciprocity. At every meeting of the Confederation I have attended more time has been given to this particular matter than to all of the other questions, or to all of the rest of the work of the Confederation. I submit that reciprocity is not a vital question. There are dozens of questions much more important for us to consider than this matter of reciprocity. If we would stop talking about reciprocity and talk about some other matters, it will be better for us. We can more profitably discuss some vulnerable points in medical legislation. I never have yet been able to learn from any member of this Confederation, or from any member of the medical profession, why reciprocity is needed, or why reciprocity is a thing to be desired. To me it is the very thing that we do not desire in this country, constituted as we are. It is a thing we can never have if we want it. If we had, or could have reciprocity, it would simply be an engine of quackery. It would introduce from one state to another incompetent men, the very men that we do not want to have in our states. The gentleman from Indiana does not want the quacks of Massachusetts in Indiana. We have got enough, and we want to get rid of them. Under reciprocity we might get dozens of them. We do not want the incompetents of Indiana in Massachusetts. Under reciprocity we might get them. There are individual cases, like the gentleman from Indiana has mentioned, that are troublesome questions for our state boards to meet. However, there is a flexibility in all laws by which we can get over those questions without great inconvenience, without annoyance to such worthy men who may want to change their field of practice. Reciprocity would enable the incompetents to go from one state to another to the injury of medical education and to the injury of the public. It is not a vital question. It is a thing we do not want if we could have it; it is a thing that we can never have.

Dr. James A. Egan, of Springfield, Ill.:

The gentleman from Massachusetts has just made the remark that reciprocity would permit the incompetents to go from one state to another. I do not think it would. The state of Illinois reciprocates with the State Board of Registration of New Jersey. We recognize their licenses; they recognize ours. We are familiar with the examinations as conducted in New Jersey. We know that no incompetents can pass that board; neither can any incompetent pass the Illinois State Board. I am not able to see that reciprocity between the examining boards of different states can open an avenue for incompetents to pass through. It is not the case between the Illinois and the New Jersey State Boards.

Dr. E. B. Harvey, of Boston, Mass.:

Can we hope to bring every state in this Union up to the standard of Illinois, or up to the standard of New Jersey? Will there not be from this time on weak examining boards? Reciprocity should enable a man, because

he is registered in one state, to practise any where he pleases in the United States, otherwise it is not reciprocity. It is a thing we cannot have ; it is a thing that we do not have in any other matter in this country. The most eminent lawyer in the city of New York to-day cannot come to the city of Boston and conduct a case at law in the courts of Massachusetts. The man who is authorized to marry a couple in Ohio cannot go to Massachusetts and marry a couple there. There is no reciprocity between the states of this country on any subject whatever. Every state is governed by its own internal laws which are made by itself. Because a man can teach school in Ohio he cannot do so in Massachusetts. Because a man can peddle tin over the border in Rhode Island, he cannot do it in Massachusetts. We are talking here about something that is utterly impossible of accomplishment, and we have been talking about it from year to year.

Dr. Wm. A. Spurgeon, of Muncie, Ind.:

There is this difference between us : Some of us are thinking of ideal reciprocity, by which it is hoped at some time in the future, perhaps when the millenium comes we shall have reached a high plane, intellectually and morally, so that any man, who breathes the free air of America can go anywhere where the Stars and Stripes float, and practise. We do not hope for that state of perfection during our lives. Our grandchildren may reach it. We cannot reach that state of perfection, and Dr. Harvey is right about it. We cannot have universal, ideal reciprocity, but we can have a certain amount of reciprocity, which I think would be right.

Dr. Harvey :

Have we not that now ? Have not Illinois and New Jersey reciprocal relations ? I do not think their reciprocity is ideal.

Dr. Spurgeon :

There are one or two states, by virtue of individual arrangements, that have established reciprocity. We are here as representative men, and we want to learn how other states have accomplished what they have already, and how far we may go in this direction and how far in the other. We do not expect to reach the ideal.

Dr. Amberg (closing the discussion):

I think the members of the Confederation and of state medical and examining boards meet here not so much as medical men, but as citizens of the United States, and I think the state medical examining boards are entrusted by the people within their jurisdiction with a great responsibility and endowed with power to act. As representatives of the people, they must do their duty in this respect regardless of any other interests. Any other medical body is only auxiliary to this body. We are not auxiliary to any one. The members of the state boards present are representing the people, and are representing the medical profession, I might say, by courtesy.

Concerning reciprocity, I cannot see how this movement will work real

harm to any one. There is not a single point in this movement which will work harm, but in a desirable way it is for the good of all. As to the progress of reciprocity and uniform medical legislation, we cannot expect to bring about radical changes in a day or two. It takes time. There is a psychologic fact in connection with this matter, and it is well known that improvements slowly gain ground. We know that the tubercle bacillus was discovered in 1882, and yet restrictions regarding tuberculosis are only being brought about now, some eighteen years afterwards. I predict that reciprocity will come in the course of time. If it does not come through the medical profession or through this body, it will come in spite of the efforts of those who oppose it. I would like to ask Dr. Harvey two questions: First, whether they are obliged in Massachusetts to examine all who come up for examination, whether they have graduated from a reputable medical college or not.

Dr. Harvey :

We are obliged to examine everybody, but just how they shall be examined, whether the examination be in part oral, or in part written, and how extensive the examination may be, is left with the board. If Dr. Senn, of Chicago, for example, comes to Boston and wants to practise medicine there, the board may use its discretion as to the kind of examination that may be given to Dr. Senn. If the board is satisfied that he is thoroughly qualified to practise medicine, then it issues a certificate to him.

Dr. Amberg :

I would like to ask whether the state board of Massachusetts subjects the applicant to a practical examination in any of the hospitals? I mean by this, to take the history of the case, examine the patient, prescribe treatment, etc.

Dr. Harvey :

I will say that our examination consists of questions and of answers to questions. These questions and answers are written, and the rating of the answers and the percentage are obtained in that way. That is the usual method of examination. We term that a practical examination, but what the doctor means by a practical examination is the examination of the patient. That would not be possible with us. For instance, in our July examination there will be from 175 to 200 applicants, and it would be impossible to take that number into a sick room and give what the doctor terms a practical examination at the bedside.

Dr. Amberg :

We now know that in Massachusetts a most detestable state of affairs exists. A man can be admitted to examination and can get a license to practise medicine who has never seen a patient. Is that not true?

Dr. Harvey :

If the doctor assumes that a man can qualify himself to practise medicine

without seeing a patient, and his qualifications are satisfactory to the board, then, I would answer, yes. If he does not assume that, then my answer is, no.

Dr. Coleman :

In order for an applicant to be eligible for examination, must he not be first a graduate from a reputable medical college recognized by the board?

Dr. Harvey :

Unfortunately that is not the case in Massachusetts. The board has been aiming to amend its law bringing about that state of things. As yet, we are unable to reach that step. The board has recommenced it, but we are unable as yet to persuade the legislature that this step should be taken.

Dr. Egan :

Very few states can discuss reciprocity with the other states.

Dr. Amberg :

All applicants that come up for examination in the State of Massachusetts should show that they possess diplomas from reputable medical colleges; but Dr. Harvey says that they have been unable to change that law. If the people of Massachusetts were told what fools they are, the law would soon be amended. I may be allowed to take back the word foolish and put in its place criminal. It is criminal, in my estimation, to allow such a law to exist. Reciprocity is the only thing by which we can raise the standard in the shortest time. Legislators are influenced more by the people than by medical men in some states, and the people in Massachusetts should cry out with all their power to try to establish reciprocity with some other states, in order to raise their standard. It is the only thing to do. Dr. Harvey has stated that reciprocity is impossible; yet he admits that it exists to a certain extent. If the doctor contradicts himself, I do not need to contradict him. According to the laws of Massachusetts, if a man, who has practised in that state, should decide to go to Illinois to practise, he would be refused. If the daily press should get on to the state of affairs in Massachusetts, there would be a quick change. And we need the influence of the daily press in this matter.

Dr. Harvey :

If a man is in active practice in the State of Massachusetts and desires to go to Illinois, why should he not have the right to practise there?

Dr. Amberg :

Because in Illinois the requirements are much higher than those of Massachusetts. In Massachusetts you allow a man to practise medicine who may never have seen a patient.

## SOME VULNERABLE POINTS IN MEDICAL LEGISLATION.

HARVEY B. DALS, M.D., Oshkosh, Wis.

Some of you may feel disposed to criticize the title of this paper, as apparently involving an indiscreet confession. It may be said that it is never good policy to weaken under fire. It is true that all medical laws and all medical boards are constantly exposed to the rifle practice of ingenious and tireless quacks, and are always more or less in danger from a possible stampede of the heavy infantry made up of those who oppose medical legislation for various reasons, selfish and otherwise. It is also true that medical legislationists can only expect to withstand these individual and collective onslaughts by maintaining a united front and fighting shoulder to shoulder. Indeed, I take it that this same necessity for harmonious effort is one of the chief reasons why this confederation of medical examiners should keep up an active and energetic organization. In union there is certainly strength, and in defiance a weapon that sometimes does much toward routing an enemy. Nevertheless, I do not believe that any man or any body of men has aught to fear from a quiet introspection, an occasional turning of the search-light of honest skepticism upon one's own methods. There is a certain element of strength in familiarity with one's own weaknesses. It is in this spirit and from this point of view that I desire to briefly call attention to some of the vulnerable points in our legislative armor that are ever and anon discovered and made use of by our watchful enemies.

We may safely lay down the premise that the ultimate intent of medical legislation is unquestionably good. Its motive is a laudable one. It aims to directly benefit suffering humanity—not to establish a doctor's trust, nor to stifle competition, nor to strangle any practical new idea or system of treatment in its infancy. Yet all of these, and other allegations involving bad faith are laid at its door—and this not alone by quacks and their sympathizers. A great many intelligent people believe that medical legislation is not only needless, but actually harmful

A moderately large and, I believe, a growing number of physicians hold to the same opinion. We may well pause and inquire why these things are so. Is the defect in our laws, or in their enforcement? Is the weakness essential, or only accidental? Is the injustice real, or simply imaginary? These are vital questions, and no mistake can be made in giving them careful consideration.

It is the plaint of many a qualified practitioner that the real effect of medical legislation is but to impose an additional burden upon those who are actually well equipped to treat disease. I believe we may safely assume that a vast majority of the medical students of to-day—speaking now of those who attend those reputable schools that are unquestionably well equipped, and supposably rigid in their requirements for graduation—are honest and earnest in their endeavor to master the science and art of healing. These students spend time and money and burn the midnight oil in the conscientious effort to fit themselves to practise medicine. Such a student receives, after four or five years of hard work, documentary evidence of his fitness, in the shape of a diploma. Taken at its supposed value, this diploma ought to entitle its holder to practise medicine. In a large and growing number of states in this union it does not. It serves only as a preliminary to a further and final test before a state board of examiners. This many a graduate regards as an unnecessary hardship. I respectfully submit that, in the case of the well-qualified, it is such. Those who seek to evade, or to find a short cut to professional standing, I have no disposition to defend; but it is an indisputable fact that the tried and trained, and really qualified, man of to-day must encounter obstacles on his way toward practice that were unknown, almost undreamed of, even a few years ago.

In justification for this, it is urged that the quack encounters even greater obstacles, that he is slowly being driven off the professional earth. But is this true? The quack is a quack, wherever we find him. He is as wide awake to-day as he ever was. In states where osteopathy and Christian science are not disturbed by law, he is an osteopath or a Christian scientist. If neither of these aliases be tenable, he is a rubber, or a magne-

tizer, or a faith healer, or a living and moving electric battery, or something else that is safe and easy. In other words, he continues to crawl under the legal fence, while his qualified brother has to climb laboriously over it. Do not understand me as undertaking to condemn the erection of this fence, in so far as its building and straightening actually contribute to the elevation of the standard of medical education. But to what extent do our present laws really elevate such standard? Is the examining board any more competent to judge of a candidate's fitness than is the faculty of the college which he attended? Is it any more likely to be honest and honorable in its decisions? Doubtless most, if not all of you, will promptly answer these questions in the affirmative. I do not say that such a position is untenable, but I do maintain that it is far from secure, and that as matters stand to-day it offers a vulnerable spot in our armor that may at any time be pierced by the arrow of cold and merciless logic.

Under the present laws, experience, which every one of us knows to be of the utmost value in qualifying any man to treat the sick, counts for naught. A physician who has practised 20 years in Wisconsin finds his wealth of clinical lore practically useless when he contemplates moving into Minnesota. Mayhap he has been tried at the bedside and found worthy and well qualified. He has seen the coming and going of many a promising fad, attended at the birth and been in at the death of many a therapeutic monstrosity. He has drunk deep from that fountain of practical knowledge that is not to be found in books, has accumulated a fund of that general information that tends to mature the judgment and establish the decision that is preeminently to be desired in the sick-room. Yet the examination of a medical board, which must, in the nature of things, embody the amplifications and technicalities of modern medicine, is enough to give such a man heart failure. But the recent graduate, bulging with text-book and laboratory wisdom, loaded to the muzzle with theory, has little fear of the technical test. Nor need he have. Many a professional fledgling can pass an examination, much more easily than he could pass a catheter. Do not construe this as a plea for the medical moss-back. It is not. The numerous laggards in the profession are not in any way de-

serving of sympathy ; but it is a fact that great injustice is done to a great many qualified men by our present Chinese wall system of state legislation. As a rule, these men have suffered in silence. They realize the necessity for medical laws, and they do not wish to ally themselves with quackery in an onslaught upon the legislative citadel. But there is a deep undercurrent of hard thinking among them, and it is gaining strength with every new strand of barbed wire that is being added to our prohibitive legislative fences. Sooner or later the power of this undertow will have to be taken into serious consideration.

I have already referred to the state examining board in terms that some of you may consider as hardly complimentary. Now I have no desire to question the competency nor to impugn the motives of the numerous members of such boards now in existence. Indeed, I am a member of such a board myself, and should dislike to be classed as one of those evil birds that foul their own nests. But this is not the point at issue. Many consider the establishment of state boards, with plenary powers, the *ne plus ultra* of medical legislation. But is this true? Let us think for a moment of what the examining board means. Its very existence is an accusation. It is *prima facie* evidence that the faculties of our colleges are to be considered as incompetent or dishonest, or both. Is this far-reaching assumption warranted? I do not believe it. Without any desire to defend diploma mills, nor to bolster up schools of at least doubtful standing, I believe it may be safely affirmed that the faculty of any one of our thoroughly reputable colleges is better able to judge of a student's real fitness than any examining board can possibly be, and that there is no valid reason why we should assume that such faculty is careless or deliberately derelict in reaching its final decision. But it may be said that, even if this be true, there is no feasible method of drawing a line of demarcation between the conscientious and the unscrupulous faculty, between the good school and the weak or bad one, other than by casting the whole output into the medical board hopper, and passing upon the results of the grinding. In other words, the gentle dew of the examining board must fall, like the rain of heaven, both upon the just and upon the unjust. Is there no better way?



The present examining board system is illogical because it attempts the purification of a polluted stream at its mouth instead of at its source. What would be thought of the health department of a city that would knowingly permit typhoid germs to be cast into the spring that formed the source of its water supply, and then undertake to protect its citizens by straining the microbes out of the flowing river? This is precisely the *modus operandi* employed by the examining board of to-day. When an unfit man is cast out upon the professional waters the blame rests entirely with the college that gave him birth. Then why not devote efforts at reform to that college instead of to its output? Why not turn the searchlight of the law upon it? Why not strangle it if it be unworthy, strengthen it if it be weak, broaden it if it be narrow, turn it upside down and inside out, if necessary—in any event, make it conform religiously to a certain standard of excellence or go out of business? Are these suggestions Utopian in their scope? Possibly—but surely no more so than the likelihood of successfully filtering out the unworthy from the great annual stream of graduates, particularly when each state in the union uses a different filter.

At the meeting of this Confederation one year ago, the writer advanced the suggestion that the solution of this problem lay in federal regulation of medical colleges, compelling all of them to maintain a certain standard. This idea was forcibly attacked by a delegate from the East, who asserted that such regulation would be wholly illegal—in fact, impossible, without changing the constitution of our country. I confess to lacking sufficient legal knowledge to argue this point intelligently—but, if the United States cannot do this, there appears to be no valid reason why each state cannot regulate the matter for itself. Nor is there any reason why states should disagree as to the standard of excellence to be maintained. Essential uniformity ought to be readily secured. Do financial interests prevent a college from doing its full duty? Then let it be endowed by the state, and placed upon a footing that will render it absolutely independent. No college that cannot be wholly independent in its methods and requirements has any real right to exist. And there are already four colleges where there should be one in this country. Those

sickly institutions that have been started mainly to foster the personal ambitions of their promoters, might find a high standard of excellence difficult or impossible to attain, but if they should fall by the wayside there are few who would mourn their untimely demise. The professional world would really be the better for their going.

Enforced unification of standards on the part of medical colleges would simplify matters wonderfully. It would clear the legislative atmosphere. It would result in a diploma being generally recognized for what it purports to be—a certificate of actual fitness to practise medicine. It would enable the recognized graduate in one state to move into another at his own sweet will. It would remove all injustices and hardships now endured, not always patiently, by qualified physicians. On the other hand, it would not lift one pebble from the rightfully rocky pathway of the pretender. It would strike the Upas tree at its root instead of lopping off its branches. It would do away with the manifest injustice to really qualified and honest college faculties now inflicted by post-mortem dissections of their deliberate decisions. In a word, it would reduce the present complicated legislative machinery, with all of its countless cogs and its wheels within wheels, to a very simple and effective mechanism. Given a concise, yet comprehensive, definition of what constitutes the practice of medicine, a uniform requirement that all who engage in such practice should have a medical diploma, and a legislative guaranty based upon actual information that such diploma says what it means and means what it says, quackery would find life a burden in this country. The qualified physician of one state would be a qualified physician everywhere. The pretender might travel from Maine to California, and from California to Maine again, looking in vain for a chance to plunder the people.

The ideas expressed in this paper may impress many of you as visionary, as impossible of accomplishment. Is this true? I leave it for each delegate to answer this question for himself. Discussion is one great object, I take it, of this gathering. Further light is what we are all seeking. Medical legislation is yet young in this country. It is in a state of evolution. At present it is admittedly unsatisfactory and unjust in certain di-

rections. Along what lines shall we proceed in improving and strengthening it? What shall we do to close the loop-holes that our enemies are finding, to straighten out the tangle of which our friends complain? Shall we enlarge and reinforce our nets strung across the river's mouth, or shall we make an effort to keep morbid material out of the spring on the professional hill-side? Is regulation of colleges impracticable? Possibly—but is it any more chimerical than undertaking to secure interstate reciprocity, than trying to fuse the long man and the short man, to evolve John by boiling down Thomas, Richard, and Henry? No doubt what we all seek is the survival of the fittest—but is it not a fact that much of our present legislation is decidedly on the misfit order? I thank you, gentlemen, for your attention, and now confidently submit the whole matter to your careful and prayerful consideration.

#### DISCUSSION.

Dr. Willian A. Spurgeon, of Muncie, Indiana :

I have enjoyed this admirable paper, and the doctor is entitled to the gratitude of the members of the Confederation for his fine literary product. It is especially commendable in that it is not dogmatic, but pregnant with suggestions along certain lines. It raises the whole question as to the method of determining the qualifications of an applicant to practise medicine. That is what we have been after all these years. It would be very ridiculous for a board of health to undertake to purify the stream, after having found out the source of contamination, if it permitted the contamination to go on. It would be along the same line that we have practised for years in this country of licensing men to go to work to sell intoxicants, then sue the fellow who gets drunk. We do that right along; we are constantly practising that. It is very essential for us to trace the source of contamination to its head and determine how we are to get at it, and that is the function of medical legislation. It is the function of boards to determine where the contamination begins. A state will charter an institution to teach medicine, and that institution can do as it pleases after it is chartered. It can profess one thing in its advertisement and do another, and those who accomplish most are the loudest pretenders and greatest advertisers. They get students into their institutions, they teach them medicine, and they do not know whether they have one liver or two. If we should go back to the old practice of allowing the diploma to be the passport to practise medicine, we would have the same condition that obtained before. We have a law, for instance, which creates an examining board, and this board takes charge of the current,

so to speak, and traces it to its source of contamination. Here is a man coming down the stream; the examining board ascertains where he comes from. The examining board finds out that he does not know anything. I don't believe in the idea of letting the diploma be the passport of qualification and the only recommendation for a man to practise medicine. If you grant that right to one institution you must grant it to all, and no good institution need be fearful of the results of investigation.

Dr. Henry Beates, Jr., of Philadelphia :

There was one point referred to in the paper which is of vital interest to this body. The one great object of medical law is to determine the fitness of an applicant to practise—his skill, his ability. The method of our examination, which method was determined by the conditions existing when the medical law was established, rendered this practically impossible. Our examinations only approximately reach the result; they are, from their nature, tests of memory, not of knowledge and skill. And the great point for this body to consider, it seems to me, when the time comes for amendments to our various laws is to insist upon practical examinations.

Dr. E. B. Harvey, of Boston, Mass.:

I appreciate the paper that has been read, and I endorse what Dr. Spurgeon has said in regard to it. Is the examining board better qualified than the college faculty to determine the fitness of candidates or applicants to practise medicine? I believe that was one of the questions the paper dealt with. I answer, Mr. Chairman, yes. The examining board is better qualified than the average college faculty in this country. The examining board is not better qualified than the faculty of Johns Hopkins, of McGill of Montreal, of Harvard of Massachusetts, or of the University of Pennsylvania, but it is better qualified to examine applicants for license to practise medicine than faculties of dozens and dozens of other institutions in this country. It is from this class of institutions whence comes the pollution. Now, the author of the paper says, shall we reform the source, the college? That, Mr. President, is a difficult thing to do, perhaps impossible. The examining board can only reach the colleges indirectly, not directly. It is very much like our quarantine system. A vessel is loaded with cargo down in Havana or some other port; it comes into the harbor of Boston with small-pox. We quarantine that vessel; we say to the officers, "you can go no farther. Stop!" The examining board takes the impure specimens that come from the Western University of Chicago, for example, and says you can go no farther. We must deal with this matter as we find it. We cannot go to the source. The legislature of a state can go to the source, but the examining board of Massachusetts can not go to that source and purify the stream; neither can the examining board of Ohio go to that source except through its legislature. The examining board of Massachusetts can not go to the weak college in Illinois and purify the source of trouble there. The

examining board of Illinois, perhaps can go through its own legislature and work to purify the source of pollution. In Massachusetts we have to deal with the product of the weak college of Illinois.

Dr. Coleman :

The state board is not bound to accept the diploma of any school which does not meet the requirements of the board. The board has power to close up any college it pleases.

Dr. Harvey :

I am answering the question taken up by the reader of the paper. He says, if I understood him rightly, why not reform the college? It is impossible for the examining board to reform the college. It is impossible for the board of Massachusetts to reform any medical college in Illinois, which may be the source of pollution of the medical stream. We have to take the stream as it reaches us in Massachusetts, and so on.

Dr. Egan :

What have you to do with colleges under your law?

Dr. Harvey :

Only as we reach them by legislation. Every state under its general law incorporates certain institutions, and in their articles of incorporation they assert that they propose to teach so and so, and they get incorporated under the general law. Whether they do teach so and so and establish themselves as a *bona fide* medical school, is a matter of their own choice. If it is found out later that it is a fraudulent concern, then the legislature revokes the charter. That has been done over and over again in Illinois and in other states. It is just so in Massachusetts and in other states. If we could establish in this country a great medical council, consisting of a certain number of members appointed by the central government, associated with one or two members or more from every state in the Union, forming a great medical council, with branches at work in every state, and that great council adjudicate all matters that are medical, then we would have in this country just about what they have in England, in the United Kingdom. That council could act upon or close the doors of any medical school in the country. It also could say whether this person or that person shall receive the degree from this or that college. Had we that state of things in this country, the same as they have in the United Kingdom, it would be ideal. The weak colleges would be weeded out, and we should have a limited number of medical schools, but sufficient in this country, for the needs of medical education. Understand, we can not reach that ideal state of things because of the very nature of the organic law under which we live. The Constitution of the United States forbids it. The Constitution of the United States only goes so far; it does not interfere with the internal governments of the various states; they establish laws for their own internal government, and all matters touching these governments are passed in the legislatures of these independent suffrages. This country is made up of independent suf-

frages, living under one general organic law, and they all adhere to that form of government. We can not reach the ideal state of that great medical council. We must deal with this matter by individual examining boards established by the various states, and when these examining boards can get together and secure uniformity in certain matters, I think it is possible and, perhaps, practicable. The examining boards of the country should aim at legislation upon this one point. Each state should have an individual examining board. No state should have three or four examining boards. The fees for registration under the different examining boards should, as far as possible, be uniform throughout the country, and just as soon as we can reach that point, no person should be admitted to examination who has not a degree from some reputable medical college, and after having received such a degree, then he shall come up for final examination by the state board before he should be admitted to practise. The reader of the paper said it is a hardship to the well qualified man to have to pass an examination. That is true. We realize that it is a hardship for the well qualified to do this, but we know that in order to do good to the greatest number we all have to suffer hardships. In order to establish social order and good government the individual must give up some of what he would claim individual rights for the good of the majority. Therefore, the well qualified man who graduates, for instance, from the Johns Hopkins, from the University of Pennsylvania, must be willing to come before the examining boards of the country in order that he may aid in protecting the people from incompetents.

Dr. William S. Foster, of Pittsburg, Pa.:

I wish to refer, briefly, to two points in the paper of Dr. Dale, one of which has been mentioned by Dr. Harvey, the competent person who has learned all that can be learned in college, and who knows in advance that he can pass the examination without trouble. The next point is as to whether boards of examiners are more competent to conduct these examinations than the faculties of medical colleges. The examination, as a rule, by the state medical board is a matter of record, which is open to inspection to the public, physicians, or anybody else who is interested. The faculty examination is a close quarter affair; no one knows anything about it. They need not give the reasons why a man has failed, or why he has passed, and I think here comes in one of the best points of the board of examiners, namely, to improve the colleges. The board can maintain its standard; if a college does not live up to that standard, its graduates cannot practise in that state, and that is a stimulus for the colleges that we can not give them in any other way.

Dr. James A. Egan, of Springfield, Ill.:

I have listened with a great deal of interest to the paper read by Dr. Dale. There are some things in it that are timely, and there are others which should be condemned. I consider the paper a plea to return to the old condition of affairs which we have found very unsatisfactory. I refer now

to accepting a diploma instead of an examination. In some states the state boards of examiners have been authorized to accept diplomas of colleges that are in good standing. What constitutes good standing? Is it possible for a state board of examiners to regulate a college or colleges, to ascertain definitely whether said college or colleges conduct their examinations properly? I do not know. In Illinois it is possible for us to supervise or regulate the colleges of Illinois, but not the colleges of Rhode Island, of Massachusetts, or of California. We cannot be present at all the examinations in those states; we cannot have representatives present during the term; we cannot tell whether a college is living up to its requirements or not. The only test of a candidate's qualifications is that which is brought out in the examination conducted by the board. We require that the candidate shall be a graduate of a medical college in good standing, as determined by the board, and the board in determining what constitutes good standing, says that the college shall have a curriculum equal to those obtaining in the majority of medical colleges in the United States. Even under our present law, this is unsatisfactory because we accept diplomas from colleges when we cannot ascertain whether they are in good standing or not. We are obliged to accept the statements made in the college catalogue, and that method of procedure is unsatisfactory.

Dr. Emil Amberg, of Detroit, Mich.:

I do not think the recommendations advanced in the paper are Utopian at all. If the term "reputable" medical colleges were kept more in the foreground and state boards of examiners could agree on the facts on which the reputability of a college is based, I think we would accomplish a great deal. Dr. Harvey said, if I understood him correctly, that when the examining boards come together and establish uniformity, then we will have better conditions. This leads again to interstate reciprocity, and Dr. Harvey admits that this is a very desirable state of affairs, because we will have better conditions, we will have a voluntary medical council such as they have in the United Kingdom. It does not lose in importance because it is voluntary. In the same way this Confederation can exert the same influence that the medical council does in England or in the United Kingdom. As soon as we get uniform requirements, the conditions can be improved.

Dr. J. R. Currens, of Two Rivers, Wis.:

We have an association of medical colleges in this country that will, I think, get up a standard that will be recognized by all state boards and bring the matter to the purifying point.

With reference to arriving at a definite understanding between the state boards as to what is the practice of medicine, the definition gotten up by the doctor from Pennsylvania was brought before our board. I had a few copies sent to me during the month of January, and we tried to introduce it into our law this year, but found such an overwhelming amount of objection to it, that we had to change the wording, but we got nearly the same thing.

But there is one thing in medical legislation I have had considerable experience with in the last few years, and that is this: no matter how just your cause, even if you have got three thousand legitimate practitioners in your state, thirty osteopaths will cause a good deal of trouble. But we tried to organize the whole State of Wisconsin; we got every doctor to use his influence, and the result was we finally got our bill through and got the osteopaths where they have to be examined; they have to take a four years' course, and have to come before the state board for examination. It is hard work in the Western states to secure what we desire in the way of medical laws, but to-day we have got a good law in our state, and the state board has discretionary power, and that is saying a great deal. The law says that the board shall have discretionary power in regard to preliminary qualifications, in regard to moral character and professional standing. We have to admit candidates to examinations; but we have discretionary power in deciding what is a reputable institution, and the word reputable is introduced in such a manner that there is no mistake about it. If you can get the influence of a thousand physicians with experience, you need not be afraid.

Dr. Dale (closing the discussion):

My paper was merely suggestive in its scope, and I realize fully that we have not as yet reached the millenium, but I do think we shall have to reach a point where we can purify the stream and its source. I have no desire to condemn examining boards; they are doing efficient work. It seems to me that there should be some method devised to purify the stream and its source, to strengthen or elevate the colleges by wiping the poor ones out of existence. This would simplify matters very materially and do away with a good deal of the complicated legislative machinery we now have. I had no intention of making a plea for a return to the former custom, as intimated by Dr. Egan, or of making a plea for weak colleges. I have no sympathy for those colleges that do not come up to the highest requirements.



## HOW SHOULD THE PRACTICE OF MEDICINE BE LEGALLY DEFINED?

By HENRY BEATES, JR., M.D., Philadelphia, Pa.

*Mr. President and Fellow Members :*

The question "How should the practice of medicine be legally defined," presents at this opportune time, in the evolution of the the science and art of medicine, that which arrests attention and commands the exercise of serious thought. Its consideration implies that an interpretation of the phrases, "the practice of medicine," "a practitioner of medicine," and "to practise medicine," have been subjected to analysis by process of law, and formulated opinion sought which possesses legal significance.

Why the property of legality attaches to it, requires examination, and is perhaps more clearly demonstrated by briefly reviewing the causes which lead up to the fact that a national confederation of State medical examining and licensing boards exists. We are, because, antedating this body, there sprang into existence a system of education, which, through the intricate factors embodied in the term conventionalism, became so firmly established and so intimately related to the highest interests of man, as to demand the regulation of its complex mechanism by due process of law.

Control of the exercise of the rights conferred upon those who possess the doctorate, seems principally to have engaged attention.

Permit here the remark that the operation of these laws is directed to the results of imperfect medical education, rather than to what is proper, the source of the evil.

For the purpose of these remarks, two grand subdivisions of the science and art of medicine are to be considered : A, what has been, and is still admitted to be, medical education ; B, its result, the practitioner ; or, perhaps more graphically, "the cause and the effect." As medical education came to be the specific function of the medical college, this institution and cause are synonymous, and, because in the clinician, the pub-

lic, by common consent, reposes the responsible duties of the practice of medicine, the doctor and effect are also synonymous. To these two factors, then, must we look for a demonstration of the reason why such a question offers as "How should the practice of medicine be legally defined?"

The medical college rapidly retrograded and was subordinated to the unprincipled demands of commercialism; so that, in order to be pecuniarily profitable, methods were resorted to to secure students, the source of their income, which can only be described in the concrete as fraudulent. Individuals were enrolled, as students, who could not understand medical science because of illiteracy, and the course of instruction was so defective and so indifferently conducted that the recipients of the degree of M.D., while technically doctors, in reality were in no sense such.

Advantage was taken of the shortcomings in the administration of corporation law, and medical colleges became legally incorporated in superfluous numbers; the already degraded competition was greatly augmented, and the evils multiplied and increased apace, so that the term "diploma mill" is most appropriately applied to almost all of the 157 institutions in the United States possessing the right to confer the doctorate.

But what does this mean, when contemplated from the point of view bearing upon the practicability of successfully administering those laws which a suffering public was obliged to enact in order to protect itself against the dire consequences of the fraudulently, yet legally, constituted doctor? Fraudulent, because the degree is not what it is declared, and, therefore, believed to be; legal, because of the technical right conferred by law to grant the M.D. It means that a power has insidiously developed, side by side, with the evolution of what passes for medical education, the influence of which is rendered actively operative in the form of a debased commercialism.

It too largely controls our legislatures, so that the very many representatives conspicuous for ability and unimpeachable character, find their efforts in behalf of proper medical education, so weakened as to result in laws that thus far are merely compromise measures; and while these have been potent factors in partially correcting the serious evils against which they were di-

rected, they are still far from achieving the ultimate results which time and continued effort will see unalterably established. This same commercial factor, by its too frequently successful operation, has discovered the strange fact that there is not a definition of what constitutes the practice of medicine, which, from a legal standpoint, serves the purpose for which medical law was intended and enacted. This, charlatans are not slow to recognize, and the audaciously practised crime of assuming to treat disease under profession of the non-employment of drugs or medicines, not only enables them to thrive but actually to obtain support for their nefarious practices, because of the technical interpretation of medical law by some of our common and supreme courts. This fact renders imposition more bold and successful, the public to be duped, and its interests jeopardized by scoundrels who are known to have had not even the advantages secured by pursuing, to its present end, the wretchedly imperfect system of medical college training. Stranger still is the fact that a large element, of our otherwise intelligent citizens, patronizes what I will now call practitioners of medicine, who are known to have no knowledge of medical science. The relevance of this apparent digression, appears in its constituting a powerful factor in opposing sincere and honest effort in the right direction ; and it must be recognized and its nature comprehended if it is to be effectually rendered impotent. The corrective is the necessity for public enlightenment on these matters by the medical profession ; and no more certain and potent aid can be invoked than that of the lay press. The public must know that on medical science depends the success of many of the most important sociologic factors that involve the financial integrity of large commercial, industrial, interstate, and international interests. The health of man and his highest possible development, without which progress in any calling is well nigh impossible, are based upon the intelligent and skilful application of the principles of medicine. Lay press education along these lines will be not only interesting, but productive of the greatest good, in securing to the earnest workers for higher medical education, that support of the general public which will root out those adverse influences referred to, but which find confronting us the question

presented in our title. Then, and only then, will it be impossible for such farces as exist under the names of Vitapath, Menta-path, Osteopath, Divine Healer, Christian Scientists, Zionist, and all such ilk, to be practised under the protection afforded by the technical interpretation of what constitutes the practice of medicine. Observe that these evils prevail because of the imperfections of medical legislation, and that because these systems receive liberal patronage, the included influences are so great that until the laity is properly instructed it would be dangerous to attempt to amend our compromise acts of Assembly, with the purpose of perfecting the law and determining the natural death of these empty nothingnesses. The present partially corrective laws have been secured by so narrow a margin, that premature effort toward their amendment would be defeated by this phase of commercialism and, in some states, result in annulling the laws, poor as they may be, which thus far have done, at least, a partial good. The technically legal interpretation of what constitutes the practice of medicine may be briefly stated without detailing the instances calling it forth, as follows :

*To practice medicine is to treat diseases and accidents by means of drugs or medicines, and if the treatment of these is conducted without drugs or medicines, one so doing is not practising medicine!* Need it be stated that such a decision by lower and supreme courts robs medical law of its intended purpose? On the other hand, if for the above reasons we cannot at present amend our medical laws there remains a very important office to fulfil, namely, the establishment of a legal definition of what constitutes the practice of medicine. Not, however, by a resort to legislation, the time is not yet ripe for that, but by a due regard for that principle, conventionalism, which determined the existence of medical education as a factor in sociologic evolution. Let us first study the points which a definition should contain, and then the methods of securing such a conventional acceptance thereof as will insure its legal significance and value. There may be some states where the public mind is so enlightened that their houses of representatives would not dare to disregard the demands of their constituents for such a legal definition of the practice of medicine as would perfect medical law and

secure its just and impartial administration, and, incidentally, supply competent physicians.

As proof of our thesis, the following quotations from letters representing different states are submitted: "The lack of a definition of the practice of medicine is, as you suggest, the chief stumbling block in the way in suits against irregular practitioners. With us we have to prove that the accused attended some sick person, gave medical advice, and received a fee. This entails the use of detectives and gives the board additional expense. Last winter we introduced a bill at the general assembly which contained a clause defining the practice of medicine. This clause got us into trouble with the Christian scientists, the dentists, and the opticians. Our bill was defeated, and the medical law would have been destroyed by another bill, which was also fortunately defeated at the last moment. We have decided that it is better to try to work a poor law than run the risk of having the whole medical law abolished by the general assembly." We thus see that, in the state in question, this phase of commercialism is still active. The public should realize that their best interests are seriously threatened by the prevalence of oblique medical legislation.

"I beg leave to acknowledge receipt of your communication, etc., relative to suits unsuccessfully brought against irregular practitioners, failure of which you consider as due to the legal technical definition of what constitutes the practice of medicine. In reply thereto, I would say that I have no suggestions to offer in the matter. While I regret that I cannot aid you, I trust that you will appreciate my position." This is an extract from the pen of the attorney-general of one of the largest and most important states of the union (not Pennsylvania). Here we see medical commercialism so entrenched as to threaten the very office of him who would honestly enforce medical law. The following from the lips of Chief Justice Mansfield, during the conduct of the celebrated Wilkes trial, is especially applicable to such a condition: "The constitution does not allow reasons of state to influence our judgments. God forbid it should! We must not regard political consequences, how formidable soever they might be; if rebellion was the certain consequence we are

bound to say : *Fiat justitia, ruat coelum*. We are to say what we take the law to be ; if we do not speak our real opinions, we prevaricate with God and our own consciences."

"Yours in reference to the fact that numerous suits against irregular practitioners prove unsuccessful is now before me. In reply would say, that I quite agree with you that the reason many of these suits go against the complainants is undoubtedly due to the adverse opinion based upon the legal technical definition of what constitutes the practice of medicine, which is the use of drugs or medicines alone in the treatment of disease, and this fact, a flaw in the definition, is easily taken advantage of by all sorts of mountebanks who are every ready to prey upon an unsuspecting and gullible public. I have read over your definition a few times and have not been able, as yet, to find anything in it that I could criticize other than favorably. I have not as yet, however, given it that amount of thought that would enable me to pass a final opinion upon the same. I will bring the matter up, however, at the next meeting of our board and have it gone into thoroughly and get an expression from the board upon the same, and you may expect to hear from me in the near future in regard to this subject." This letter refers to the gullible public and indicates the necessity for public enlightenment.

"Replying to your esteemed favor, etc., permit me to state that the definition which you enclosed is a good one, and to all appearances seems to cover all the points that could be covered by the use of the English language relative to the matter, but at the same time I beg to state that, in my opinion, it matters but little what definition may be established by law, the court seems to have a convenient way of construing such definition that is not always satisfactory to the medical profession. I take the liberty of enclosing a copy of the law, etc. ; of . . . . The definition there set forth would seem to cover every possible point that could be, conceived, and I believe will accomplish, to a great degree, the object for which it was framed, yet we find, in enforcing it, there are some loopholes whereby those who are arraigned before the court for infractions of the law are enabled to slip out. I fully agree with you that a uniform definition, to be adopted by all

states, would be a great value, but whether such definition could be made to conform to all the laws that now exist, is a question I am unable to answer." An examination of the definition referred to discloses its weakness in the effort to embody statutory details rather than those principles of common law upon which statutory law is based. The whole matter shows how alert these shrewd commercialists are, and how almost certainly some of the representatives of the law can be induced to discover technical defects and divert self-evident intent from its normal channels into the shallows of dishonesty.

"Let me thank you for your letter bearing the definition of the practice of medicine. No one thing has given me so much trouble, not to mention mortification, as the construction of this act by our courts. Had it not been for this obstacle, my board would have succeeded long ago in abolishing 'osteopathy' from the state. I think the definition meets all the requirements."

"I think so much of your definitions that I shall submit them without change to our legislative committee." Where such a committee exists, it is suggested that the function of its members be so differentiated that to each may be assigned a special difficulty. For example, if a medical faculty be pulling every wire to encompass the defeat of an honestly conducted board, let it be the duty of some one member to neutralize such nefarious influence; or if an influential trustee endeavor to subvert gubernatorial power, let the diplomatic member negotiate the difficulty; and should the lay press be deceived into misleading the public and perpetuating the ignorance which has deprived us of their support, let the right man see to it that the editorial "blue pencil" be used intelligently, with honesty, and without fear.

"In reply to your letter relative to the existing incomplete definition of what constitutes the practice of medicine, I beg leave to say that I most heartily concur in your opinion, that the time has come when there should be an established definition. The one you have sent me is, in my judgment, complete, and leaves no room for improvement. I will distribute copies among the members of our board and ask them if they have anything to suggest."

"Your definitions of what constitutes the practice of medicine, etc., I like very much. Can they be enacted into a statute? Will your state do it? If so, it would be a valuable start toward weeding out quacks, osteopaths, Christian scientists, *et id genus omne*."

Sufficient has been quoted to justify our introduction and to demonstrate in all parts of our country the existence of that same disintegrating commercialism. Its power is proportionate to the degree of public ignorance. The technical defects of existing medical law have been briefly outlined, their compromise features demonstrated, and the reasons therefore partly stated. The indicated correctives or complemental amendments are self-evident; and the unwisdom of prematurely attempting this is shown. The first great problem is to educate the public which has in innocence born of ignorance, compounded a felony by its cooperation with those powerful influences so detrimental to the achievement of man's highest possibilities. The very encouraging advance already made is indicated by the title of this paper, which is, in effect, a new feature. Every one knows thoroughly well that the common principle of law underlying medical practice in each state is the exclusion of the incompetent practitioner. The ingenuity of these incompetents who, while actually practising medicine, escape the penalty of the law by keeping within the limits of technical protection through the use of professed drugless methods, mere hocus-pocus, is as successful as astounding in circumventing our laws.

In this manner fraud is practised, actual crime committed, and medical law robbed of much of its intrinsic value. Thus the anomalous situation exists by which the educated and competent physician is subjected to the inconvenience of medical law, while the quack, path, and impostor is at liberty to prey upon an unsuspecting, ignorant, and "gullible public." Contemporaneous with this type of practitioner of medicine is the illiterate doctor, male or female, grossly ignorant of even the principles of medical science and stranger to its art. These possess the degree of M.D. and, mark you, legally. Because of these conditions life is sacrificed, health seriously and permanently



impaired, quarantine ignored or imperfectly observed, pestilence spread broadcast and communities injured, ruin fostered, the many economic interests embodied in commerce, interstate and international, seriously jeopardized, the expense of government incalculably augmented, and taxation made unnecessarily burdensome. The economic argument alone is sufficiently convincing, if it be but comprehended. That it has not, long since, been urged to acceptance is largely due, as has been indicated, to the ignorance of the general public upon this subject. But we, as practitioners of medicine and still more as public officials charged with the administration of medical law, cannot escape censure for the neglect of those duties of a larger citizenship which make it incumbent upon us to instruct our patients, friends, and neighbors in all the mighty ramifications of our glorious profession. To establish a definition of what constitutes the practice of medicine, requires a solid but conventional foundation which, by usage and understanding, will be comprehended to the full by every citizen. Any departure from such an understanding will then be intolerable to every commonwealth, and any attempt to give legal protection to those who would venture to practise medicine illegally will necessarily fail, just as does the similar process commonly practised by legally incorporated medical colleges, of fraudulently conferring the doctorate upon those who do not meet the requirements of medical law.

The writer, after reviewing the technical defects of medical law upon which adverse ruling in suits against illegal practitioners have been based, both by lower and supreme courts, has formulated a definition which seems to meet all the objections of which he has knowledge. This definition is respectfully submitted to this body for consideration, criticism, and such suggestions as it in its wisdom deems advantageous. It is as follows :

#### TO PRACTISE MEDICINE.

*For anyone, except those carrying out the directions of the attending physician, to engage, directly or indirectly, habitually or occasionally, gratuitously, or for pecuniary or other compensation, in the care, management or treatment, by any means whatsoever, either*

*material or immaterial, for the relief or cure of any or all diseases, accidents, or disabilities to which human or animal life is exposed, threatened, or afflicted.*

#### PRACTITIONER OF MEDICINE.

*Any one except those carrying out the directions of the attending physician, who engages directly or indirectly, habitually or occasionally, gratuitously, etc., as above.*

#### THE PRACTICE OF MEDICINE.

*The engaging by any one, except those carrying out the directions of the attending physician, directly or indirectly, habitually or occasionally, gratuitously, etc., as above.*

It meets all technical legal points thus far adversely decided. It exacts from every one who engages in the practice of medicine that which is just to all and unjust to none, a thorough medical education. It does not encroach upon legitimate personal rights, and it does supply a powerful argument with which to meet any financial, social, or political antagonism. If through our influence it become conventionalized, it will serve as a legal definition of what constitutes the practice of medicine.

#### DISCUSSION.<sup>1</sup>

Dr. William Warren Potter, of Buffalo, New York :

*Mr. President.*—I presume, that professionally almost every man, who has come in contact with this question of medical education, feels that some sort of remedy is necessary to deliver the medical profession from the dilemma which the law, as interpreted by the courts in the various states, seems to put us up against. In the state of New York there has been an attempt to obtain legislation on this subject. I do not know just how well planned it has been, or how well the application given to the legislature will be considered ; but I believe the measure has received the assent of legal men who understand fully the difficulties in the way, and who have studied the question in the various states. At all events, some gentlemen, who are familiar with the matter, approved the bill and it was drawn, and it went to the legislature. The hearing was in the Assembly chamber at Albany, and, I presume, I do not exaggerate the fact when I say that there were at least five hundred Christian scientists there from all parts of the state arrayed in opposition to it. It

<sup>1</sup> The discussion is printed from the copy as furnished by the secretary of the Confederation, and has not been submitted for revision by the Bulletin to the speakers.

was a bill which embodied, in the main, the principles which Dr. Beates has presented to us in his paper, not worded perhaps in the same manner, but the principles were nearly the same. The very fact that such tremendous opposition could be arrayed by a sect which does not claim to practise medicine, but who in reality does show how difficult it is to obtain legislation on questions of this sort. An adjourned hearing developed pretty much the same state of affairs. Physicians are busy men; they are not always conditioned to attend hearings and adjourned hearings and re-hearings; but people, like the Christian scientists, so-called, and the osteopaths, so-called, are always ready and willing to appear in large numbers, and they seem to overawe the average legislator. They seem to impress the legislator with the idea that there are a great many votes behind them. I would be slow to impugn the motives of any man who sits in any legislature, but many legislators seem to care less for a principle than they do for votes. That is about the condition, as we find it, in New York state, and I have no doubt a similar condition exists in other states. It is very difficult to obtain any kind of legislation that will do justice to the great profession of medicine in the way of an adequate definition of what it proposes, of what it practises, and what it proposes to practise, and, at the same time, not be swamped, not be over-ridden by the idea that it interferes with the rights, constitutional or otherwise, of a very large class of people who assume the privilege of doing about as they please.

Again, in the state of New York we labor under this difficulty. A good many years ago a very eminent justice of our supreme court expounded the law in a decision which he elaborated with learned and legal phraseology, the essence of which was that the practice of medicine must consist in the prescribing of drugs and, as in the case before him, no drugs were prescribed, the party could not be held for a violation of the law. That stands as an interpretation of the present statutory law of the state of New York, and if any prosecution is attempted by a medical body or anybody else, or if any person interested in this question goes to any district attorney in the state of New York for information on this point, he will say: "that is the interpretation of the court on the subject, and I cannot aid you. I cannot bring action in this case because it will certainly go against you. I cannot consent to bring action in any case where the decision of the court is so directly against the proposition that you present. So there you are." On the one hand, we cannot obtain a prosecution because the ruling of the court is against us. On the other hand, we cannot get a new law because the legislators will not permit it. There we seem to fall just outside the breastwork of an intelligent definition of the practice of medicine. There are a great many intelligent men in the medical profession who are opposed to any attempt to obtain intelligent or any other kind of legislation on the subject. They are opposed to appearing before the legislature at all, because they say our

present laws are adequate, if they are only properly interpreted. We cannot get a new issue in the state of New York because of the old decision. It seems to me, we are in a very unfortunate condition with reference to obtaining any new statutory definition of what constitutes the practice of medicine. We are perfectly competent to deal with a man who is licensed under the law and does what he should not do, but the unlicensed practitioner we cannot touch at all. That is the dilemma. It is an interesting situation. It is almost humiliating to state in this presence that such is the state of things in New York state, but, nevertheless, it is substantially as I have stated. Dr. Suiter is present; he knows a good deal about the subject, and I am sure he would correct me if I had not given you a résumé of the situation. It is true, we have no power to prosecute unlicensed practitioners, no matter what sort of "ism" or "pathy" they may choose to practise. We have, under our law, no power to attack them.

Dr. Joseph M. Mathews, of Louisville :

I am obliged to Dr. Beates for writing this most excellent paper and dealing with this very important subject, but I am constrained to ask, of what profit will it be? A judge has the right to construe a definition of the practice of medicine as he pleases, but he must construe the law as the law is. If you will make this definition a statute, then the learned judge will not have the privilege of saying: "I do not think that this gentleman is practising medicine because he does not give drugs." Permit me just a moment to narrate a trial that occurred in our court a few weeks ago, in which the decision was in our favor in the lower court, by a most learned judge, but was reversed by our supreme court in a few weeks thereafter. I had the lawyer to ask the osteopath, whom I had arrested and tried, if he treated, for instance, diphtheria? He said he did. I had him ask, how did you treat diphtheria? He answered by the introduction of the hand into and down the throat and manipulating the throat. I then asked Professor Bailey, a learned physician of our city, and who is professor of practice of medicine in the University of Louisville, what such treatment would do? He answered it would kill the infant invariably. In answer to a proposition of the lawyer who was defending this man, we asked Dr. Vance, a distinguished surgeon, if he had not had many cases in surgery in which he did not administer a single dose of medicine. He said that it was his common practice to reduce fractures, dislocations, etc., and possibly never administer any medicine at all. The judge said that because forsooth the man did not give any medicine, he was not practising. The question arises, what is legal? The medical profession might accept that definition. It might be a long time before we get the laity to accept that definition. But does that accomplish much? We must get before the courts. We must compel a judge trying an osteopath, a Christian scientist, or what not, to try him according to

the law, and not according to what he thinks is the practice of medicine. I think Kentucky has a good medical law. We had the worst legislature for five years to contend with that has ever assembled in the United States. Legislators are not credited with the greatest intelligence in the world, and that is true down our way, but we had to work with these gentlemen, we had to make them believe that they were great men, and the course we pursued was simply this, which is the course to pursue to accomplish the purpose Dr. Beates is after. What does he want this definition for? Not for self-aggrandizement. Great Scott! these people are not in our way; but we are to protect the people, the women and the children, the sick, from these miserable rascals. That is the object of the definition. We cannot accomplish much by saying that this is the practice of medicine. We went to the medical profession of every county in our state, and we said to each doctor: "Doctor it is important to have a medical law. Here is the act that we have prepared; read it. Become familiar with it yourself. See your legislator; you can use arguments with him that nobody else can. If you are not his family physician, get the man who is. See him before he goes to the legislature and get him to pledge himself that he will stand by that medical act." In this way, we got the members of each county in our state to exert their influence on their respective legislators. Whenever a state desires a medical act it will have to be through the medical profession working on the representatives in that state legislature. You cannot do it in a week or one year, but it can be accomplished. It looks like a Herculean task, but it is not. If these men are approached right, talked to as if they were gentlemen, and then you do as Dr. McCormack has done, stay with them at Frankfort, at the capitol, see that they do not violate their pledge, go to the family doctor and have him come up to the capitol, if necessary, to punch them up and get their votes, you will get medical legislation which is strictly legal, and not what is interpreted by judges or lawyers. It will go on the statute book, and whenever a case comes up the judge will say that such and such a matter is left with the state board of health, and I have nothing to do with it. The definition of the practice of medicine given by Dr. Beates is one of the best I have ever read or seen, but its application must be through the courts, and I would like to get it on every statute book in the United States. We can slip many things through the legislature, but this definition of the practice of medicine must become a statute in order to be effective, otherwise very little is accomplished by it.

Dr. T. J. Happel, of Trenton, Tenn :

I came here to listen, not to talk. Tennessee has been in a bad way for several years, but I am glad she is about to redeem herself on medical matters. The only point I wish to speak of is the one referred to by Dr. Mathews a short time ago. Dr. Mathews is a practical politician. I do not know what experience he has had, but he has developed rapidly into a practical politician. Now, as he suggested, we may adopt the resolu-

tion or definition suggested by the essayist here or in any state society in the United States; we may adopt it in the American Medical Association, but we accomplish nothing until we go further than that. We must, as Dr. Mathews suggested, have it made a statute. I suggest right here, that I am no politician; I have never held a political office, and never wanted to do so, but I have had some experience in watching political matters. The best way, in my opinion, to get that definition accepted is to incorporate it into the medical law. Let the law say that such and such are the penalties of practising medicine. Have that introduced as a separate statute. It is better to have a short bill passed than a long one. In talking to one of the members of our last legislature about a certain bill, he said, "I would not vote for that bill for the reason that it has 25 sections in it, but I would vote for it in two sections. Take that suggestion and put it in the form of a single statute, and present it, be it enacted by the General Assembly of the State of Tennessee, etc., that the following shall be a definition of the practice of medicine, etc. Let that be a separate and disconnected part from your medical bill. Let your medical law establish a misdemeanor, etc." If it is done in the way suggested by Dr. Mathews, we can get through almost any kind of medical legislation. We had experience in our last legislature on that line. Our medical bill was emasculated. We took the course suggested by him in the different counties to reach the practitioners of medicine. You must reach your representatives through the practitioners of medicine in the state. You cannot reach them after they go to the legislature. You must exert your influence on them before they get there. If they are to be nominated at the primary convention for representatives, go to them and say, your names are to be brought before the convention as representatives in the next General Assembly. Will you do so and so in regard to the definition of the practice of medicine? Will you support this or that medical measure? Will you do this or that thing for the medical profession? If you will; if you will pledge yourselves to do that, as medical men in this county we will support you. If you do not, we are against you. Do not do it in a sneaking way, but go at it openly and frankly. I do not believe there is any man who has more influence in a political contest in a country county than the country doctor. We know that the country doctor has the biggest following of any man in the county. If you can interest physicians in your counties, their influence will outweigh other outside influences that are brought to bear upon them. If you can bring the influence of your board on this matter, you may be able to enact it into a statute. If you can get such a measure through, then the courts will sustain us in our efforts, otherwise every state has its own interpretation of what constitutes the practice of medicine.

With reference to osteopaths and Christian scientists, I wish to say that the less we interfere with them or have to do with them the better. The osteopath is dying out in the State of Tennessee. It takes a good

town to support an osteopath, one of not less than 5,000 inhabitants. Tennessee has but few such towns. Furthermore, they cut one another's throats in the cities. The profession say to the laity, if they call themselves what they really are—masseurs—then we will support them, or send them cases; but we don't want them to practise medicine in the true sense of that term. I don't know what is going to be the final outcome, but I understand one of the states has enacted a law, but how well it is going to be enforced, I do not know, to the effect that it shall be a misdemeanor for any parent, guardian, or party having care of a minor, to permit that person to pass through a contagious or infectious disease without calling in a practitioner of medicine or a surgeon, as the case may be. If we could get similar laws passed in other states, we would get at the foundation of the Christian scientist. If they should treat such cases and death follows, under such a law, it seems to me, they could be indicted for manslaughter, and then the temple which they are trying to build would topple over.

Dr. William S. Foster, of Pittsburg, Pa.:

I did not expect to discuss this paper. I was much pleased in listening to it, and I know Dr. Beates has given a great deal of thought to the subject. I do not know whether I really appreciate this definition or not, but, I am sure, I am not ready to agree that this Confederation should go on record as favoring or adopting this definition of the practice of medicine.

Dr. Coleman:

As I understand it, the definition was simply incorporated in the paper as a suggestion.

Dr. Foster:

Well, what is a suggestion but a definition of what we mean by the practice of medicine?

Dr. Coleman:

It is the writer's definition.

Dr. Foster:

I think it is open to criticism. What has the matter of "gratuitously or for pecuniary or other compensation" to do with the practice of medicine? As I understand it, this is a definition of the practice of medicine, and not part of a law. If you put this definition in connection with qualifications as a part of the law, it is a different matter, but as a definition of the practice of medicine to go before the profession without any other connection than this, it seems to me, it is something that we would not want to present. I refer to the first section of the definition, "to practise medicine." That is the way it appeals to me; I would be glad to be corrected if I am wrong.

Dr. James A. Egan, of Springfield, Illinois :

I would like to answer the question just asked, if permitted, before I speak of other parts of the definition. In the state of Illinois a law of that character would be of great benefit, for the reason that a great many under this law claim that they do their work for nothing. They claim their work is gratuitous. Furthermore, they allow their patients to give them presents, and, it seems to me, that to make a definition of the practice of medicine stringent, that section should be embodied in the definition.

Dr. William S. Foster :

May I correct the last speaker. I asked for a mere interpretation of the matter to practise medicine. The question of a fee is not involved. If we have a definition of the practice of medicine anywhere, it does not state whether you shall practise gratuitously or pecuniarily. We want a definition not to apply to Illinois or Pennsylvania, but one which will strictly apply to the practice of medicine. Is that, Dr. Beates, what you meant to give?

Dr. Beates :

The remarks were addressed to the property of legality, because in some states they can practise medicine if they do not receive a fee, they are not practising according to the law, technically speaking. The object of my paper was to suggest how we could incorporate in a definition of what constitutes the practice of medicine that property of legality, which is vitally essential to the success of our administration. Therefore, this is the definition I have submitted to this Confederation for criticism and perfection. A legal definition that allows anybody to practise medicine, who is legally practising because they do not take a fee, defeats the object of the law.

Dr. James A. Egan :

No matter how stringent a definition of the practice of medicine may be, the fixity of the law depends upon its construction by the courts. Some courts in the United States have declared osteopathy to be the practice of medicine; other courts have rendered decisions exactly the opposite. Let us take Christian science. The statutes of Nebraska and Rhode Island are almost similar; yet the supreme court of Nebraska has declared Christian science to be the practice of medicine. The supreme court of Rhode Island has declared it not to be the practice of medicine. The efficiency of the law depends upon its construction or interpretation by the courts.

Dr. J. R. Currans :

I have listened with a great deal of interest to the doctor's paper and to this suggestion in regard to a definition of the practice of medicine. The thing which is puzzling us is to create something that is nearly uniform, so that the courts can not put a different interpretation on it than was intended by the framers of the law or by the suggesters of the law. We attempted, in



Wisconsin, this year, to pass an act with a clause in it similar to this one that has been suggested by the doctor from Pennsylvania, and we found that we drove the opposition on the high grounds and fortifications, and we had to go around a corner and attack them from another source. We made a compromise and got what we could. I think as a class the Wisconsin legislature is composed of as intelligent a set of men as ever assembled in a legislative body. I have looked over that body time and again; I have been through three terms of medical lobbying, and I didn't think, when I looked at these men, we would have a set of men who would be easily convinced and easily handled in regard to raising the standard of medical education or the medical law. But they seemed to be willing to do what was reasonable. I neglected to state this morning that we had a revision of our statutes in 1898. In the revision of the law of 1897, by leaving out two or three words, the interpretation was entirely changed. For instance, where it was intended to require three courses of six months each, in the revision the statute read, "three courses," there being nothing said about six months each. These little things have to be watched. We tried to get in this clause. The point is we must try to put in what we want; we have got to be careful to get it out of our general law and have it brought in sideways or independently, but any way so as to tighten them up. I will give you from memory the substance of our law touching the practice of medicine. It reads something like this: Any person shall be considered as practising medicine within the meaning of this act who shall sign or advertise himself as an M.D. or doctor, or who shall have a title, or hold himself to be a Doctor of Medicine, a Bachelor of Medicine, or who shall prescribe for a fee for any person with any ailment whatever. This is where the fee comes in. The law of 1887, still on our statute books, reads something like this: "Any person who shall advertise or hold himself out to be a doctor, or who shall advertise as an M.D., or Bachelor of Medicine, or who shall practise medicine without a diploma from a regularly chartered medical college, shall be liable to a fine, and can not collect fees."

We have in Wisconsin a great many people practising under that law. This law was never looked after, as they had no power, and the profession ran along without paying any attention to this article on the statute books. A great many men had no diplomas at all and practised medicine for many years. The only way to handle legislators is to get something in when they don't know it.

Dr. Emil Amberg:

One of the principal reasons why physicians have to lobby is the lack of confidence in the medical profession, and that this lack of confidence exists, cannot be disputed.

Dr. McClintock, of Detroit, in a paper read before the Detroit Medical Society, touched several important points in connection with the subject, and he offered figures that in the United States during the last year 160 made drugs have been bought of druggists against 10 prescribed by phy-

sicians. This statement speaks volumes. If we go a little further, we come to the point mentioned by Dr. Beates, which has not been taken up in this discussion so far, and that is regarding medical colleges. Although we admit that the majority of teachers in medical colleges are efficient and are acting in good faith, we cannot deny the fact that some of these positions are bought in one way or the other. So far as the public is concerned, who are familiar with these facts, it does not add to the elevation of the medical profession." So far as the medical profession itself is concerned, I think the competition on part of some medical colleges is dishonest, and it certainly tends to lower the respect of one physician towards another, and as long as this disrespect of one physician towards another exists, we cannot expect the public to respect the profession in general in the way it should.

Dr. E. B. Harvey :

It does not seem to me, Mr. President, that under the law mentioned by Dr. Potter in his remarks and in this enlightened age, that such a decision as that can stand in the great state of New York, or in any other enlightened community, and if it does stand in New York, I am sorry for the people of that great commonwealth.

In regard to this definition, in Massachusetts we have a law which says, "Any person who, not being registered, shall hold himself out as a practitioner of medicine, or practises or attempts to practise of medicine in any of its branches, shall be considered as committing a misdemeanor," etc. In addition to that penal section, we have another section which says that "any one, excepting those carrying out the directions of the attending physician, who engages in the care, management, or treatment, by any means whatsoever, either material or immaterial, for the prevention, relief, or cure of accidents or disabilities to which human beings are exposed, shall be considered as practising medicine within the meaning of the law." If we could have such a section added to the present act in the state of Massachusetts, we would have the whole thing. Christian scientists, osteopaths, or what not, would not carry on their work in that commonwealth, but the difficulty lies right here and there. It has been up to this time rather impossible for us to enact such a section in that commonwealth. Three years ago it was attempted, not in exactly that language, but it is substantially the language of this definition, and, as Dr. Potter described to you, we had the same thing there that they had in New York last year—hundreds of Christian scientists and osteopaths come up to the hearing, and day after day, I might almost say, night after night, the hearing went on, and the result was the persons having charge of the bill were turned down and the board was left to withdraw. The argument used by the attorneys for the Christian scientists was, that it is the business of the court to define what is the practice of medicine, or what comes within the meaning of the law; that it is the business of the legislature to enact the law, but it must leave its interpretation to the court. There is something in that, and still if by another act, independent perhaps, we

could have something of the kind embodied in a statute, as given here as a definition, we would accomplish what we most desire.

I would like to hear the views of Dr. Beates in regard to whether it would avail anything for this or any other body to use that definition without securing its incorporation into the statutes. We have definitions of the practice of medicine. I think if we will consult the Century dictionary, or any of the standard dictionaries, we will find that the practice of medicine is the art of healing; that a practitioner of medicine is a person who engages in the art of healing, or one who makes the art of healing a profession. It seems to me, that covers the whole business.

Dr. William A. Spurgeon :

I do not understand that it was the object of the author of this paper to have the Confederation vote on this definition. It is simply part of the discussion, and we are seeking to reach a conclusion as to what a proper definition would be to put in the law when we come to it. But there are very few questions more vital than this, namely, incorporating into the law a definition of the practice of medicine. It is a very important matter.

In Indiana the law states that the practice of medicine, in the meaning of this act, is to do so and so. That brings us to the point where the legislature furnishes the definition. We succeeded last winter in getting a definition incorporated into our law very similar to the one proposed. We have some things that are not in this definition. We have certain provisions, one of which is to this effect : Any person who professes so and so shall be considered as engaged in the practice of medicine in the meaning of this act or statute which becomes a part of the law of the state. We got that, and other states can get it. It is a difficult thing to get legislators to put into the law what ought to go there.

I have little criticism to offer on this definition, except in this regard: We have found that to undertake to say too much in a bill renders it more or less vulnerable. You may have a good law, and if, through inadvertency, there slips into the phraseology of the bill some term which will create antagonism to the measure, it may be the means of ridiculing the whole bill and of turning the table against us. There is often great strength in what you do not say, or as much as in what you do say. The less you leave for the legislators to lop off the better for you.

If you want to get a law you must organize all over the state. We have found that out in Indiana in getting bills passed.

Dr. E. B. Harvey :

I suppose that Dr. Beates has proposed this definition of the practice of medicine for criticism. This definition is open to very wide criticism. I think a committee of the legislature would strike out as immaterial a large part of the definition, particularly this portion of it : " For any one, except those carrying out the directions of the attending physician, to engage, directly or indirectly, habitually or occasionally, gratuitously or for pecu-

niary or other compensation." He must engage habitually or occasionally, gratuitously, or for compensation, for one or the other. It seems to me, all that language is simply superfluous, and any Committee on Bills, in the third reading, would draw a blue pencil through it. The definition is faulty in the abundance of words the author has used, which does not add any strength to it.

Dr. James A. Egan :

I think the definition is defective in the first line or first two lines wherein it says : " For any one, except those carrying out the directions of the attending physician," etc. In the State of Illinois we have found that unlicensed practitioners frequently practise or claim to practise under the directions of other physicians, in order that they may be beyond the pale of the law. They are practising under preceptors, as it were. The attending physician, if he desires to do so, or if there is any question raised, can say it is his case, and then let the unlicensed practitioner see the case afterwards. I would suggest to Dr. Beates that he insert the word "nurses." Further on it is stated, "in the care, management or treatment, by any means whatsoever, either material or immaterial, for the prevention, relief, or cure of any or all diseases," etc. That portion of the definition would strike at nurses, for they care for the sick ; and, of course, there should be some clause relative to title of doctor or "ism."

Dr. J. R. Currens :

Most laws have a qualifying clause to this effect : " This shall not apply to surgeons in the U. S. Army and to dentists, and to those practising under preceptors." That clause was in the old law. In the law of 1899 this clause was inserted, "nor in any wise conflict with the present statutory laws." As for these words, they are just the thing to keep the court from putting his own interpretation on it. I think it is all right the way the doctor has it.

Dr. William S. Foster :

The text of this paper is : How shall the practice of medicine be legally defined? For the life of me, I cannot see how the qualifications have anything to do with the definition of the practice of medicine. They should be added to another section or act afterwards, whatever it may be. I fear the court would rule this whole matter out as a definition of the practice of medicine. I want to look at the matter from the side of Dr. Beates, because I am in sympathy with it and with him. But as matters are at present, it is not a definition of the practice of medicine which will be accepted.

Dr. Beates (closing the discussion):

The points raised by Drs. Potter and Mathews, that in New York and in Kentucky quacks and non-users of medicines are enabled to practise, and be beyond the pale of the law is a fact, and we cannot get away from it, and the hopelessness of both New York and Kentucky to correct that evil consists in

what I endeavored to present in my paper, namely, the fact that public opinion permits such interpretations of the law to stand without being questioned. Public ignorance as to the interests involved is another point in the paper upon which I endeavored to lay some stress and to argue for the necessity of education of the public on the importance of these matters. Why do legislators fear to render statutory the principles of law about which we have been engaged in discussing this afternoon? Simply because public opinion is not at the back of it. That constitutes the explanation. Can this definition be made a statutory law? Will your state or my state do it? I may ask will any state do it? It cannot do it until physicians educate their patients and their neighbors up to the point of realizing that we must demand from the legislators that such action as this or a similar definition will secure. It seems to me, the principle is that we must give legal significance of what constitutes practitioners of medicine. A practitioner of medicine is one who treats disease. This is a simple definition, but it has no legal value by reason of the fact that statutory laws exist in every state. Webster, or any other authority, when it comes to giving the definition statutory analysis, fails.

As to the point raised by Dr. Spurgeon, to offer a weak point before a legislature is to defeat any bill, no matter how valuable the bill may be, and if legislators can see that the application of a mustard plaster is prevented by this law, it shows that a little ridicule will sway the intellects of the average legislative body. The most important point to be borne in mind is to present such a definition that ridicule can not be cast upon it.

As to verbiage, the point is very well taken from one standpoint; but verbiage is necessary to offset the legally adverse decisions which have been rendered, and it is well known that adverse decisions have been rendered by courts because some one has either occasionally or habitually, gratuitously or pecuniarily, directly or indirectly, done the very thing, and verbiage must be indulged in to circumvent what experience has proved to practically exist.

I want the Confederation to understand that the remarks submitted and the definition are absolutely without any personal feeling on my part. The definition was submitted to this body for its wise analysis and such suggestions as would, I know, be given in the most kindly spirit. We have but one thing in view, and we should move as one man, shoulder to shoulder. I am very gratefully obliged to the gentlemen who have pointed out the weaknesses in this definition, and I hope the paper has demonstrated to this body the need for a certain line of action. If we can educate the public as to what constitutes the practice of medicine, then we could take the next step in the evolution of this matter and influence the legislators, and then, and not until then, can the common law become a special or statutory law.

# TRANSACTIONS OF THE NATIONAL CONFEDERATION OF STATE MEDICAL EXAMINING AND LICENSING BOARDS.

## ELEVENTH ANNUAL MEETING.

Held in the House of Representatives of the State Capitol, St. Paul, Minnesota, Monday, June 3, 1901.

### MORNING SESSION.

The Confederation met at 10 A.M., and was called to order by the president, Dr. J. N. McCormack, of Bowling Green, Ky.

Prayer was offered by the Rev. M. D. Edwards, St. Paul.

The president called for the report of the Secretary-treasurer. This report was presented verbally by the Secretary, Dr. Suiter, as follows :

The report of your Secretary-treasurer will be a brief one, and I shall only take up some subjects connected with the business of the Confederation. Following the established custom, it is the duty of this incumbency to make a brief statement pertaining to the business affairs of the Confederation and to offer such recommendations as may be deemed expedient for future guidance.

It is an interesting and pleasing circumstance that we meet in this famed city of the great northwest, and in a state the reputation of which stands so high in all that pertains to the encouragement of scientific ideals and the progress and advancement of professional standards. To us as members of this body a peculiar interest attaches to the fact that this city was the home of the late lamented Dr. Perry H. Millard, whose far-reaching influence and efforts as one of the founders of the organization are among our most cherished memories.

The experience of the past ten years in the work of the Confederation has abundantly demonstrated the great value of its influence in the promotion of advanced standards of requirements in the education and equipment of aspirants for professional license, and congratulations may well be spoken in consideration of the markedly advisory position which we now occupy in relation with the medical public.

Quoting the expression of a distinguished ex-president, it may properly be said that we are perhaps the only medical body which meets at this time, the members of which bear the commission of the states whence they come. This fact, in association with the general character of our proceedings, places a certain badge of authority upon our deliberations; and thus it happens that our discussions and the resulting conclusions are extensively sought for, respectfully considered, and frequently followed.

The proceedings of the Atlantic City meeting and papers presented at that time, together with the discussions, have been published under the usual title : "Transactions of the National Confederation of State Medical Examining and Licensing Boards," thus continuing the series unbroken since the publication began excepting the year 1898, when the meeting lapsed.

It must be said, however, that the condition of the treasury was such that this would not have been possible had it not been for an arrangement generously made by the editor of the Bulletin of the American Academy of Medicine, which journal continues as heretofore to be the official organ of the Confederation. By this arrangement we were enabled to publish an edition of 200 copies as a reprint from the Bulletin, with an appropriate cover. One-third of the expense of composition and printing was borne by the Bulletin in return for the contributions to its columns, and part payment of the balance was accepted. The Confederation accordingly is now indebted to the Bulletin to the amount of \$66.00. It is understood that this amount when paid will be used by the Bulletin to send complimentary subscriptions to members of the Confederation under the direction of the executive council.

It is earnestly hoped that means may be adopted at this meeting whereby the moderate current expenses of the Confederation may be more satisfactorily met, as it would be most unfortunate should financial circumstances interfere in any way with our prestige and influence in the field represented by the organization. Our published proceedings are eagerly sought for and carefully studied throughout the states of the union, and it must be borne in mind that constitutionally one of the principal objects of the Confederation is : "The collection, compilation, and dissemination of information regarding state licensure in medicine, and of methods for its betterment." It is hoped also that some plan may be proposed at this time to secure affiliation and representation on the part of many state boards that are not as yet officially connected.

In conclusion I have to present two interesting communications that have recently been sent to me for that purpose. One is from the New Jersey State Board of Medical Examiners, and one from the distinguished editor of the Bulletin of the American Academy of Medicine, Dr. McIntire, who offers to assist us in our work. I will read the communication from Dr. McIntire first. It is as follows :

"While nowadays, hob goblins are conjured with to frighten children and the unlearned, back somewhere, in the history of the people, there was some slight fancy or very substantial fact as the basis of it all. Jack o'lantern, a pigment of fancy dispelled by the chemists' search and the revelation of the true character of marsh gas, is no more reliable as a guide through the swamp, if we mention it by its chemical formula. A condition inspiring dread is equally real whether the cause is fiction or stern reality.

"Whether justifiable or not, there exists in the medical mind of the day a profound mutual distrust, and more especially in educational matters. The

faculties of medical colleges are not permitted to conduct the entrance examinations for their own schools; boards of examiners are not willing to accept the diploma of the medical schools as the evidence of scholastic training in medicine, but the applicant must, in addition, indicate the years studied and the courses pursued. In like manner, when the question of reciprocity in medical licensure is broached, the bogie of the unequal character of the examination of the boards at once frightens the timid. This bogie may be of too solid flesh that will not thaw and resolve itself into a dew, or it may be a trifle light, as air. In either event, it needs an investigation so that the proper value can be placed upon it. Consequently, I ask the cooperation of the Confederation in an investigation into the character of the bogie. My proposition is that I submit to as many of you as will cooperate in the research, a series of questions and answers on some of the subjects for examination for licensure. The questions are to be selected from those that have been used by some medical board. How the answers were prepared must not, for the present, be explained. Suffice it to say, they were prepared in good faith. I will submit three answers to each question. My proposition is that the questions and answers be submitted to that member of each board who usually reads the papers on the subject and be marked by them according to their standards, the markings to be sent to me for comparison and report at your meeting in 1902.

"The personal factor of error in this investigation is evident. The markings will be apt to be more strict than if the results were not to be submitted to you for comparison. To reduce this to a minimum, the results will be tabulated impersonally, and the report will in no wise indicate the geographic locality of the board.

"If any of you are thus willing to cooperate, kindly give your names to the secretary of the Confederation, who will forward them to me."

The other communication which I have to present comes to us from the secretary of the State Board of Medical Examiners of New Jersey. It reads:

"This board has made a decided departure in the matter of interstate reciprocity of medical licenses which it would be pleased to have you present to the Confederation. The basis of this departure relates equally to the academic and medical qualifications of the applicant, and to the grade and scope of the state examination and to the general average attained. The academic and medical qualifications of the applicant must meet the requirements of this board, the grade and scope of the state examination must be substantially the same as that of this board, in reference to subjects of examination, number of questions, method and hours of examination, and a general average of not less than 75 per cent."

*The President:* What disposition will you make of the report of the Secretary?

*Dr. Henry Beates:* I move that the report of the Secretary be referred to the Executive Council. Seconded and carried.



Dr. Suiter presented his report as Treasurer, which was referred to the Executive Council to be audited.

*The President*: In view of the fact that the time for our work is very limited, the address of your President will be passed, and we will proceed at once to the scientific program of the Confederation.

Dr. Emil Amberg, of Detroit, Michigan, then read the report of the "Committee on Interstate Reciprocity and Uniform Medical Legislation,"<sup>1</sup> which was discussed by Drs. Beates, Foster, Egan, McCormack, Alvord, Spurgeon, Dale, Currens, Harvey, and the discussion closed by the author of the paper.

On motion the report was received and filed.

Dr. Harvey B. Dale, of Oshkosh, Wisconsin, followed with a paper entitled "Some Vulnerable Points in Medical Legislation."<sup>2</sup>

This paper was discussed by Drs. Spurgeon, Beates, Coleman, Foster, Egan, Amberg, Currens, and the discussion closed by the author.

On motion, the Confederation then adjourned until 2.30 P.M.

#### AFTERNOON SESSION.

The Confederation reassembled at 3 P.M., and was called to order by the first vice-president, Dr. Coleman.

Dr. Henry Beates, Jr., of Philadelphia, read a paper entitled "How Shall the Practice of Medicine be Legally Defined?"<sup>3</sup>

The discussion on this paper was opened by Drs. William Warren Potter and Joseph M. Mathews, and was continued by Drs. Happel, Foster, Egan, Currens, Amberg, Harvey, and Spurgeon. The discussion was closed by the author of the paper.

Dr. Foster, of Pittsburg, reported on behalf of the Executive Council, stating that the council had examined the accounts of the treasurer, and had found them correct, showing a deficit of \$66.77.

The council approved the application of the Minnesota State Board of Medical Examiners for membership; also the applica-

<sup>1</sup> See p. 811 of this number.

<sup>2</sup> See p. 825 of this number.

<sup>3</sup> See p. 837 of this number.

tion of Dr. W. C. Cox, of Everett, State of Washington, for membership.

On motion, the report of the Executive Council was adopted.

The next thing in order was the election of officers for the ensuing year, which resulted in the election of the following gentlemen :

*President*, Dr. N. R. Coleman, Columbus, Ohio; *First Vice-President*, Dr. Henry Beates, Jr., Philadelphia; *Second Vice-President*, Dr. James A. Egan, Springfield, Ill.; *Secretary-Treasurer*, Dr. A. Walter Suiter, Herkimer, New York, reelected; *Executive Council*, reelected, consisting of the following members: William S. Foster, Pittsburg, Pa.; Joseph M. Mathews, Louisville, Ky.; William A. Spurgeon, Muncie, Ind.; William Warren Potter, Buffalo, N. Y.; Augustus Korndoerfer, Philadelphia, Pa.

On motion, the Committee on Interstate Reciprocity and Uniform Medical Legislation was discharged.

The president called for a report of the Committee on Requirements to act conjointly with a similar committee from the Association of American Medical Colleges.

Dr. Henry Beates stated that an interview was held jointly by the two committees, but no official business was transacted, it being just simply a conference. Therefore, there was nothing further to report.

It was moved and carried that the committee be discharged, with a vote of thanks.

On motion, the members of the Committee on Interstate Reciprocity and Uniform Medical Legislation were also extended a vote of thanks for their arduous and efficient work.

It was moved by Dr. Harvey, that it is the sense of the Confederation that the next annual meeting shall consist of three sessions, one in the morning, one in the afternoon, and one in the evening, but that this matter be placed in the hands of the Executive Council. Carried.

There being no further business to come before the Confederation for consideration, on motion the Confederation then adjourned.

## CONSTITUTION.

**WHEREAS:** The action in many of the states in requiring a state license before entering on the practice of medicine makes it eminently desirable that the qualifications for licensure be fairly equivalent in the various states; and that, eventually, by a system of reciprocity, a physician licensed by any one board may obtain the privilege of practising under the jurisdiction of any other board by the proper certification of the license, without a new examination, a closer affiliation of the various examining and licensing boards becomes a necessity.

### ARTICLE I.

#### *Name.*

This body shall be known as the NATIONAL CONFEDERATION OF STATE MEDICAL EXAMINING AND LICENSING BOARDS.

### ARTICLE II.

#### *Objects.*

The Confederation has for its objects:

1. A conference of the medical examiners of the various state boards for mutual aid and counsel, and for a comparison and discussion of the methods employed.
2. The collection, compilation, and dissemination of information regarding state licensure in medicine, and of methods for its bettering.
3. If at any time it may seem desirable, the adoption of regulations for the guidance of the operations of the confederating boards; or, the formulation of rulings, advisory in their nature, indicating the conclusion of the Confederation.

### ARTICLE III.

#### *Members.*

SECTION 1. Any member of any examining or licensing board of any state or territory is eligible to membership while he continues a member of the Board, upon presenting proper evidence of his position to the Council of the Confederation; and, unless elected to membership as prescribed by this Constitution, the membership will cease when he ceases to be a member of the board of examiners.

SEC. 2. Physicians, not members of an examining or licensing board, may, upon application to the Council, be nominated by it to the Confederation and be elected to membership by a two-thirds' vote of the members present at any meeting.

SEC. 3. The members shall have equal rights and privileges excepting in voting for the regulations.

### ARTICLE IV.

#### *Regulations.*

SECTION 1. As the regulations are to be rules governing the concerted

action of the confederating boards, they can be only adopted by a vote of the boards themselves.

SEC. 2. Each state shall have but one vote in voting for the regulations and the person delegated to cast the vote for any state shall be communicated by the various boards to the secretary of the Confederation, at or before any meeting at which a regulation is to be acted upon.

SEC. 3. Unless all the boards having membership in the Confederation give consent, no regulations shall be acted upon at the meeting at which it is proposed; but it shall lie over until the next meeting and be published in the notice of the meeting.

SEC. 4. If any provision of any proposed regulation can not be adopted by any of the confederating boards, because of the limitations of the state enactment creating the board, it must be amended before it is voted for, upon presentation of the facts by the board affected.

SEC. 5. A vote of two-thirds of the boards having membership in the Confederation is necessary for the adoption or repeal of any regulation.

## ARTICLE V.

### *Officers.*

SECTION 1. The officers of the Confederation shall be a president, who shall deliver an address at the annual meeting, two vice-presidents, and a secretary, who shall act as treasurer. The officers shall be elected at the annual meeting, and shall hold office for one year, and until their successors are elected. They shall perform the duties usually pertaining to these positions, and shall be, ex-officio, members of the Council.

SEC. 2. There shall be elected at each meeting, at the time the officers are elected, 5 of the members, who, with the officers, shall constitute the Council. The Council shall have charge of the affairs of the Confederation between the meetings; shall prepare and present annually to the Confederation a list of the members of the examining boards of the various states, together with the date of the termination of the service of each; shall receive and examine all applications for membership, nominating to the Confederation such, as in their opinion, should be admitted to the Confederation. It shall also order and audit all expenditures, suggest extraordinary assessments when they are deemed necessary; make preparations for the meetings; supervise the working of the regulations and carry into effect conclusions or recommendations of the Confederation, making provision for the proper publication of all of the transactions that it is desirable to publish. All complaints or charges must be referred to the Council without debate, and in like manner, any resolution or new business whatever, unless it is entertained by unanimous consent. All business referred to it must be reported back to the Confederation at the same meeting, unless it is specifically instructed to the contrary. It shall make rules for its own government and make an annual report to the Confederation.

## ARTICLE VI.

*Meetings.*

The Confederation shall hold one meeting annually at such time and place as the Council may select; but additional meetings for specific purposes may be called by the Council if it shall be deemed necessary; at least two weeks' notice must be given of any special meeting, and the business to be transacted specified in the call for the meeting.

## ARTICLE VII.

*Funds.*

SECTION 1. Each state board represented in the Confederation shall pay an annual fee of ten dollars into the treasury, and shall be debarred from the privileges of the Confederation when in arrears. In consideration of this fee, the members of the boards so contributing shall be exempt from the payment of the regular dues.

SEC. 2. Except as provided in Section 1, the members of the Confederation shall pay an annual fee of one dollar into the treasury; and no one shall have the privilege of registering at any meeting until all arrearages are paid.

SEC. 3. If at any time it may be necessary, the Confederation upon recommendation of the Council, may impose an extra assessment, which shall be levied on all members alike.

## ARTICLE VIII.

*Quorum.*

Five members shall be a quorum to transact business, except on a vote on a regulation, but the board of examiners of any state may transmit to the secretary of the Confederation its vote on any regulation; this vote shall be received the same as if cast by a member of the board present at the meeting.

## ARTICLE IX.

*Amendments*

Amendments to the Constitution must be submitted in writing to the Council at least thirty days before the meeting, be advertised in a notice of the meeting, and adopted by a two-thirds' vote of the members present, provided any state board of examiners shall have the privilege of transmitting its vote to the secretary of the Confederation, which shall be received the same as if it were cast by a member present at the meeting; but this privilege is not accorded to any board represented by any of its members at the meeting.

**MEETING OF THE REPRESENTATIVES OF ILLINOIS,  
WISCONSIN, INDIANA, AND MICHIGAN  
STATE MEDICAL BOARDS, AT CHI-  
CAGO, JANUARY 17, 1902.**

**Present :** Dr. J. R. Currans, Two Rivers, Wis., President of the Wisconsin Board of Medical Examiners; Dr. W. A. Spurgeon, Muncie, Ind., President; Dr. W. T. Curryer, Indianapolis, Secretary ; Dr. James M. Dinnen, Fort Wayne, Treasurer of the Indiana State Board of Medical Registration and Examination ; Dr. James A. Egan, Springfield, Secretary ; Dr. William O. Forbes, Chicago, of the Illinois State Board of Health; Dr. B. D. Harison, Sault Ste. Marie, Secretary of the Michigan State Board of Registration in Medicine.

Upon motion, Dr. Currans was made temporary chairman and Dr. Harison temporary secretary.

By Dr. Curryer, seconded by Dr. Spurgeon :

*Resolved*, " That Dr. H. M. Ludwig, late secretary of the Wisconsin Board of Medical Examiners, be given a seat in the meeting." Carried.

By Dr. Spurgeon, seconded by Dr. Dinnen :

*Resolved*, " That a permanent organization be effected." Carried.

By Dr. Spurgeon, seconded by Dr. Dinnen:

*Resolved*, "That this association be called "The Confederation of Members of Reciprocating State Medical Examining and Licensing Boards." Carried.

By Dr. Dinnen, seconded by Dr. Spurgeon :

*Resolved*, "That Dr. J. R. Currans, of Wisconsin, be president until further action by this Confederation." Carried.

By Dr. Dinnen, seconded by Dr. Curryer :

*Resolved*, " That Dr. Harison, of Michigan, be secretary until further action by this Confederation." Carried.

By Dr. Spurgeon, seconded by Dr. Ludwig :

*Resolved*, " That Dr. James M. Dinnen, of Indiana, be vice-president until further action by this Confederation." Carried.

By Dr. Dinnen, seconded by Dr. Curryer :

*Resolved*, "That Dr. W. A. Spurgeon, of Indiana, be treasurer until further action by this Confederation." Carried.

By Dr. Spurgeon, seconded by Dr. Dinnen :

*Resolved*, " That a committee be appointed by the chair, of one member from each state represented at this meeting, to formulate a policy for reciprocity between states." Carried.

The chairman appointed Drs. Spurgeon, Harison, Egan, and Ludwig such committee.

The meeting then adjourned for two hours to allow the committee to report.

#### ADJOURNED MEETING.

Called to order by the president, Dr. J. R. Currens.

Present : Drs. Egan, Forbes, Spurgeon, Dinnen, Curryer, Currens, Ludwig, and Harison.

Report of committee through its chairman, Dr. Spurgeon :

Your committee appointed in the matter of reciprocity begs to submit the following proposition :

1. That a license or certificate of qualification of at least one year's date and based upon presentation of a satisfactory diploma, and an examination before a board in specified branches of medicine and surgery, may be accepted at the discretion of a board, in lieu of an examination, and as a basis upon which the license of a state may be issued.

2. That a license or certificate of qualification issued by a State Board of Registration or Medical Examiners of at least one year's date, based upon presentation of a satisfactory diploma and upon the recommendation of a State Board of Registration or Medical Examiners as to the reputability of the applicant, may be accepted at the discretion of a board, in lieu of an examination, and as a basis upon which the license of a state may be issued.

By Dr. Spurgeon, seconded by Dr. Dinnen :

*Resolved*, " That the report of the committee be accepted and adopted." Carried.

By Dr. Curryer, seconded by Dr. Spurgeon :

*Resolved*, " That the secretary send to other boards the minutes of this meeting, with a view of their cooperation." Carried.

By Dr. Spurgeon, seconded by Dr. Dinnen :

*Resolved*, " That this meeting adjourn to May next, at the call of the secretary. Carried.

**Note :** Owing to the differences which exist in medical laws in the different states, it was only possible for the Confederation to recommend the policy upon which the reciprocal exchange of certificates could be accomplished. The details of such reciprocal exchange of certificates must be arranged between states reciprocating, also the standard of preliminary education as well as that of the medical qualifications of licentiates, must be a matter of agreement between reciprocating states.

**LETTER OF SECRETARY TRANSMITTING COPIES OF THE MINUTES TO THE VARIOUS EXAMINING BOARDS.**

April 2, 1902.

**DEAR DOCTOR :** I inclose you for the information of yourself and board a copy of the minutes of the first meeting of the Confederation of Members of Reciprocating State Medical Examining and Licensing Boards, held in Chicago, January 17, 1902.

You will note that simply a policy was adopted relative to reciprocity, leaving it for the individual reciprocating boards to adopt a standard of preliminary and medical qualifications. These standards must be adjusted between the boards entering into reciprocal relations, and as far as the standard is concerned the trend will always be upward.

The dividing line (on date) will have to be set between Noa. 1 and 2 (see minutes) by individual reciprocating boards : No. 2 including only those practitioners who have re-registered under a re-registration clause or who have obtained their certificates on the basis of graduation from a recognized or listed college ; No. 1 including only those who have obtained their certificates through an examination. Both Noa. 1 and 2 will be subject to the standard adopted by reciprocating boards.

No. 2 takes in the reputable practitioner of the state who is a graduate from a reputable college, either defunct or now existing, and who has obtained his certificate under a re-registration clause, but whose medical course covered perhaps no more than two years at the date of his graduation. In an opinion given recently by the attorney-general of Wisconsin, he stated that under the law a person who had graduated from a reputable medical college, under a two years' course, some years ago, had the same standing in law that a medical man had who had graduated from the same college, under a four years' course at a later date. Reciprocity would be a failure if it did not take care of those physicians who have been in practice several years but who graduated from reputable colleges previous to the advance of such colleges to a higher standard. If this proposition was not acquiesced in, then men of the very highest standing and experience could not be included in any reciprocal exchange of state certificates, and only very recent medical



graduates could obtain the benefits of reciprocity. It leaves it entirely at the discretion of a board as to whether it shall accept an application or not, even though the applicant may be a graduate of a reputable college.

It has been held by some in the past that it would be unconstitutional in law for a state to accord privileges to one registered physician and deny them to another registered physician in the same state, but there are numbers of decisions of the supreme court in almost every state upholding the principle that when a qualification is exacted the element of prohibition is eliminated, from the fact that it is possible for every person to obtain the qualification demanded, and hence it cannot be held as prohibitive legislation. Therefore the state has a right to accept with a qualification a physician registered in a state and reject another registered physician without a similar qualification although in possession of a similar state license in the same state. This legal question has been an important factor in the past against reciprocity. It seems to me if care is taken relative to standards in reciprocity between states that the standard of medical requirements should be rather raised than lowered, and it also should have a beneficial upward tendency as far as college courses are concerned, from the fact it would be necessary for a college to adopt in its curriculum the requirements of those states having the highest requirements, otherwise its students or graduates would be at a disadvantage after graduation and would not be able to take advantage of the reciprocity regulations in some of the better states. Those states adopting the most stringent standard will be able to give more to their licentiates, and it certainly would be an object for not only states, but colleges to furnish their licentiates and graduates with the highest quality of a certificate or diploma.

It is a well-known fact that a business or manufacturing interest without competition has very little of the progressive in it. The competitive idea enters very largely into reciprocity of state licensures. For example, Michigan never would be content with a medical law that prevented her from having her certificates recognized in the leading states simply from the fact that the requirements for her license were inferior to the standard of requirements in the states as above, consequently she would use every effort to bring her requirements up to the mark. Likewise a college must do business to be successful upon the quality of her diploma and its value as a qualification for state license. For instance, a graduate of the Detroit College of Medicine could possibly go up before the Ohio Board for examination, and, if successful, receive the Ohio license, but if he did not in his course at the Detroit College, obtain a certain standard he could not, in consequence of having the Ohio license, exchange it with a state in reciprocity with Ohio, unless the Detroit College standard came up to a certain mark, as agreed upon by the two states in reciprocity.

The boards entering into reciprocity will not, as has been done by the American College Association, fix a standard in years, as a "four years' course, of six months in each year," but will set the course in hours, itemizing each subject and laboratory course as has been done by the Michigan

Board in its standard for the recognition of colleges. In other words, in the recognition of standards the *fact* will be required as well as the *form*. Therefore reciprocity will certainly promote uniformity of requirements for graduation at medical colleges without reciprocity, and under the present state regulations relative to registration, the competitive idea is not present, especially so in those states requiring an examination for license, from the fact that a graduate from any so-called reputable college can take the examination, and if successful in obtaining his license he has nothing further to look to, his requirements being simply local and of no value outside of the state. If, on the other hand, his qualifications obtained through an examination before a state board, also in addition to conferring upon him the right to practise in such state, give him the privilege of registering in other states, the state board granting this privilege would require a higher standard and a more uniform standard from its applicants in order to be able to exchange its certificate with those states having the highest standard.

A fact that must not be lost sight of is the overwhelming evidence that the great mass of the profession is determined to elevate the standard, and unless the plan of reciprocity conforms with this idea of a higher standard, reciprocity can never be accomplished and should not be accomplished. Half a dozen boards uniting means the raising of the standard of every college affected by this union, and if this union means, as it should, only the complete recognition of colleges of the highest grade, then cheap and inferior colleges must go by the board. Union with other boards makes it possible for a state board to throw out its inferior schools, for they would not be recognized by the other states in union; and it would then be comparatively easy for a state board in a state in which they are located not to recognize them in consequence.

Another fact that must be remembered is that reciprocal exchange of certificates between boards should only be made upon equal terms, and that no state should give or take a certificate except on the basis of an equal qualification. Therefore, for a time anyway, complete reciprocity between states will not be possible, but a modified reciprocity should in due course of time bring about complete reciprocity. Michigan will in a short time exchange certificates obtained by examination, the licentiates having a certain standard of preliminary and medical education, with Illinois, upon equal qualifications. Owing to the Illinois Medical Act permitting registration in that state only upon certificates obtained through an examination it is not possible for Michigan and Illinois to reciprocate under the second proposition of the Chicago meeting, but the principle of reciprocity is recognized by both states, and undoubtedly a freer exchange will follow in the near future.

Another very important advantage of reciprocity would be gained from the fact that state medical legislation could more easily be had. It is a well-known fact that legislators, particularly those from the rural districts, look upon medical legislation as class legislation, or as a "Doctor's Trust." This later term is the favorite club used by irregulars and quacks in their fight

before legislative committees against medical bills. Reciprocity opposes this idea of a "Doctor's Trust," from the fact that it opens the way and makes easy the outgoing of the medical product of a state and the incoming of properly qualified men from other states without unnecessary restrictions and expenses. A higher standard of qualifications can more readily be obtained from the legislature, who would hardly turn down an argument for a higher standard based upon the necessity of an equal standing with other states in order to obtain reciprocity.

The intention at first was that only secretaries of boards should attend the meeting in Chicago, but other members of boards happily were present and it was decided to form an association of *members of reciprocating boards*, as it did not seem advisable to carry "dead timber" in the new ship. For example, it does not seem good policy to have as members of a swimming club persons who do not swim and who do not believe or intend learning to swim. I think perhaps the Confederation of State Boards would have accomplished much more if it had not had too many members who, if not opposed to reciprocity, still were almost wholly indifferent to its many advantages and merits. Therefore the meeting was limited to those central western states who desired and whose medical Acts provided for reciprocity. In place of starting the culture with a score or more of germs, some healthy, others unhealthy, and still others of an uncertain class, or mixed culture, it was thought best to begin the culture of reciprocity by implanting four or five healthy germs of a certain class, knowing that under proper attention and circumstances the smaller and healthy, or pure culture, would certainly develop in time; and avoiding the risk usually incident to the growth of a larger and mixed culture.

It is the wish of the members of the Confederation that all members of boards throughout the union who favor or believe in the principle of reciprocity in state licenses should attend the meeting of the Confederation of Members of Reciprocating State Medical Examining and Licensing Boards, to be called in Chicago, next May, and will you kindly convey this invitation to your board? The date of such meeting will be announced about May 1st.

Yours very truly,

B. D. HARISON, *Secretary*.

## SECRETARY'S TABLE.

We give the proceedings of the National Confederation of State Medical Examining and Licensing Boards in this number. The question of reciprocity was given considerable attention, possibly more than its importance really deserves. As was pertinently said, there are a number of subjects fully as important as that of reciprocity, and more practicable, since their discussion is possible to trace a path other than circular. Notwithstanding, it is to be regretted that the Confederation so summarily disposed of the question. The action was probably taken because of the excessive zeal of the champions of the subject.

Possibly one result of this action is the organization of another society. Two things are to be regretted in this: first, the organization of the society at all,—the multiplication of associations only weakens the influence for good; and secondly, the naming of the new society to closely resemble the older one. Both names are insufferably long and resemble each other so closely as to be confusing.

It will interest our readers to have a transcript of the minutes of the initial meeting of the new Confederation, and also a copy of the circular letter it is issuing. They are to be found elsewhere in this number and are published through the courtesy of Dr. Harison, the secretary.

Careful reading of the plan of reciprocity presented does not reveal any real solution. Each board, as far as it has power, may adopt such rules as it may deem best, to accept a licentiate from another state without an examination, or with a modified examination; and to this end, the new Confederation suggests forms. These are no more binding than any of the numerous suggestions made by the old Confederation.

The underlying fact is that we are not ready for interstate legislation as yet. State examinations are too recent for us to properly comprehend many of these questions. They should be threshed over and over again; much of the chaff surprisingly resembles the pure grain, and it needs heavy flail strokes and many of them, to separate it. It is to be hoped that every board

represented in the new Confederation will have active representation at the meeting of the old Confederation at Saratoga, and that all who attend will endeavor to so unite interests that a single association, full of vigor and life, will result.

\* \*

The Colorado State Medical Society offers a prize of twenty-five dollars for the best essay, for circulation among the laity, upon the dangers of self-drugging with proprietary medicines.

The competition is open to all. Essays must be type-written in the English language, must contain not more than 3000 words, and must be submitted before June 15, 1902. Each essay must be designated by a motto, and accompanied by a sealed envelope, bearing the same motto, and enclosing the name and address of the author. The essay receiving the prize will become the property of the Society for publication. Others will be returned to their authors. Essays should be sent to the Literature Committee, Dr. C. A. Graham, Secretary, Stedman Block, Denver, Colorado.

\* \*

This number completes volume five. The secretary will be pleased to arrange for the binding of the volume. The style of binding adopted by the Academy is distinctive, substantial, and handsome. These volumes will be exchanged for unbound numbers at \$1.25 a volume, we prepaying express charges on the bound volume. Or any bound volume, except volume one, will be sent, carriage prepaid, for \$5.00. The price of the very few remaining copies of volume one, which includes the first twenty-six numbers, is \$10.00 each.

\* \*

*A propos* to the paper of Dr. Beates on the legal definition of the practice of medicine, published in this number, are the following actual definitions as found in legislative enactments. We are indebted to the *Southern Medical Journal* (May, 1902) for their compilation.

Georgia defines the "practice of medicine" to mean, "to suggest, recommend, prescribe, or direct, for the use of any person, any drug, medicine, appliance, or other agency, whether

material or not material, for the cure, relief, or palliation, of any ailment of the mind or body, or for the cure or relief of any wound, fracture, or other bodily injury, or any deformity, after having received, or with the intent of receiving therefor, either directly or indirectly, any bonus, gift, or compensation." Missouri defines it: "any person attempting to treat the sick or others afflicted with bodily or mental infirmities without first obtaining a license from the State Board of Health, as provided in this Act, shall be deemed guilty of a misdemeanor and punishable by a fine of not less than \$50 nor more than \$500, or by imprisonment in the county jail for a period of not less than thirty days nor more than one year, or by both such fine and imprisonment, for each and every offense, and treating each patient shall be regarded as a separate offense."

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## LITERATURE NOTES.

### SOCIETY TRANSACTIONS.

- I. TRANSACTIONS OF THE COLLEGE OF PHYSICIANS OF PHILADELPHIA. Third Series, Volume 23. Philadelphia. 1901. pp. lxxii, 320, 143.
- II. TRANSACTIONS OF THE AMERICAN CLIMATOLOGICAL ASSOCIATION FOR THE YEAR 1901. Volume 17. Philadelphia. 1901. pp. 414.
- III. TRANSACTIONS OF THE RHODE ISLAND MEDICAL SOCIETY. Volume 6, Part 3. 1901. Providence, 1902. pp. 279-417.

I. This volume publishes the papers read before the college from January, 1901 to December, 1901, inclusive; and also a research carried on under the auspices of the Nathan L. Hatfield Committee of the college, by Dr. H. F. Harris, of Atlanta, Ga., "On the Alterations Produced in the Large Intestines of Dogs by the Amoeba Coli, by Heat and by Various Chemic Substances." None of the papers are upon sociologic items, although they maintain the high standard, characteristic of these volumes.

II. The papers contained in this goodly volume keep more closely to climatology than those of some of the previous volumes. A modern Apelles will never feel impelled to chide the medical profession of the present age with a variant on *Ne*

*sutor ultra crepidam*, nor is it surprising that so many jurists confine the practice of medicine to the administration of drugs, when papers whose titles indicate such an administration are presented to a society devoted to the study of climate. The present volume speaks well for the broadening of the professional minds.

III. The Rhode Island Transactions contain three papers which have value in sociologic literature : The annual address on "The Yesterday and To-Day of Mental Medicine," by Dr. G. Alder Blumer ; a paper by Dr. John M. Peters, on "The State Care of Epileptics ; the third, by Dr. J. Perkins, on "A State Sanatorium for Tuberculosis in Rhode Island. What Would It Accomplish?"

We commend these papers to any who may be interested in these subjects.

## LIST OF CONTRIBUTORS TO VOLUME V.

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|                          |                    |
|--------------------------|--------------------|
| Emil Amberg.....         | Detroit.           |
| A. R. Baker.....         | Cleveland, O.      |
| Henry Beates, Jr.....    | Philadelphia.      |
| W. B. Cannon.....        | Boston.            |
| W. M. d' A. Carhart..... | New York.          |
| E. G. Carpenter.....     | Columbus, O.       |
| N. R. Coleman.....       | Columbus, O.       |
| John Curwen.....         | Harrisburg, Pa.    |
| Harvey B. Dale.....      | Oakshosh, Wis.     |
| T. D. Davis.....         | Pittsburg, Pa.     |
| John M. Dodson.....      | Chicago.           |
| H. Bert Ellis.....       | Los Angeles, Cal.  |
| Rosa Englemann.....      | Chicago.           |
| Everett Flood.....       | Palmer, Mass.      |
| F. Maxwell Foshay.....   | Cleveland, O.      |
| Gustav Futterer.....     | Chicago.           |
| A. Goldspohn.....        | Chicago.           |
| J. W. Grosvenor.....     | Buffalo, N. Y.     |
| C. A. Groves.....        | East Orange, N. J. |
| J. N. Hall.....          | Denver.            |
| C. A. Hamann.....        | Cleveland, O.      |
| Howard T. Hansell.....   | Philadelphia.      |
| Wm. J. Herdman.....      | Ann Arbor, Mich.   |
| Bayard Holmes.....       | Chicago.           |
| F. C. Hotz.....          | Chicago.           |
| Edward Jackson.....      | Denver.            |
| S. A. Knopf.....         | New York.          |
| Elmer Lee.....           | New York.          |
| J. N. McCormack.....     | Bowling Green, Ky. |
| Charles McIntire.....    | Roston, Pa.        |
| G. Hudson-Makuen.....    | Philadelphia, Pa.  |
| J. Cheston Morris.....   | Philadelphia.      |
| Helen C. Putnam.....     | Providence.        |
| Walter L. Pyle.....      | Philadelphia.      |
| A. Ravogli.....          | Cincinnati.        |
| S. D. Risley.....        | Philadelphia.      |
| Harry Parks Ritchie..... | St. Paul, Minn.    |
| Parks Ritchie.....       | St. Paul, Minn.    |
| James A. Spalding.....   | Portland, Me.      |
| E. Stuver.....           | Ft. Collins, Colo. |
| James L. Taylor.....     | Wheelersburg, O.   |
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